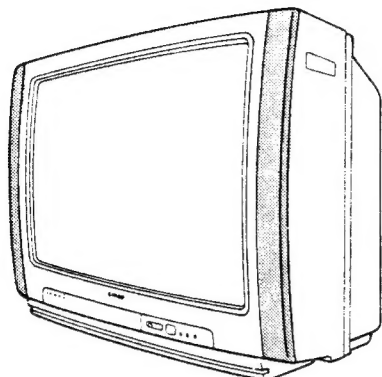


**SHARP****SERVICE MANUAL**

S43W525AN1B//



**28 SYSTEM  
COLOUR TELEVISION**  
**Chassis No. C-200**

**MODEL 25AN1(B)**

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

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**WARNING**

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis.

To prevent electric shock, do not remove cover. No user — serviceable parts inside. Refer servicing to qualified service personnel.

**SHARP CORPORATION**

# ELECTRICAL SPECIFICATIONS

|                                 |   |
|---------------------------------|---|
| Power Input .....               | 200 V~240 V AC, 50/60 Hz                  |
| Power Consumption .....         | 155 W                                     |
| Convergence .....               | Self Converging System                    |
| Focus .....                     | Bi-Potential, Uni-Potential Electrostatic |
| Sweep Deflection .....          | Magnetic                                  |
| Intermediate Frequencies        |   |
| Picture IF Carrier .....        | 38.9 MHz                                  |
| Sound IF Carrier                |   |
| 6.5MHz .....                    | 32.4 MHz                                  |
| 6.0MHz .....                    | 32.9 MHz                                  |
| 5.5MHz .....                    | 33.4 MHz                                  |
| 4.5MHz .....                    | 34.4 MHz                                  |
| Colour Sub-Carrier              |   |
| PAL/NTSC .....                  | 34.47 MHz                                 |
| SECAM .....                     | 34.494/34.65 MHz                          |
| NTSC .....                      | 35.32 MHz                                 |
| Audio Power Output Rating ..... | 7.5W x 2 (Max.)                           |
| Speaker                         |   |
| Size .....                      | 12cm x 6cm Oval x 2 pcs                   |
| Voice Coil Impedance .....      | 8 $\Omega$ at 400 Hz                      |
| Aerial Input Impedance .....    | 75 $\Omega$ Unbalanced                    |
| Receiving Channels              |   |
| ● PAL-B/G, SECAM-B/G            |   |
| VHF .....                       | E2 thru E12                               |
| UHF .....                       | 21 thru 69                                |
| CATV .....                      | S1 thru S3,<br>M1 thru M10<br>U1 thru U10 |
| ● PAL-D/K, SECAM-D/K            |   |
| VHF .....                       | R1 thru R12                               |
| UHF .....                       | 21 thru 69,<br>China 57                   |
| ● PAL-I                         |   |
| VHF .....                       | (IRELAND): B thru J                       |
| UHF .....                       | (U.K., H.K.): 21 thru 69                  |
| ● NTSC-M                        |   |
| VHF .....                       | (US): 2 thru 13                           |
|                                 | (JAPAN): 1 thru 12                        |
| UHF .....                       | (US): 14 thru 79                          |
|                                 | (JAPAN): 13 thru 62                       |
| CATV .....                      | A-6 thru A-1,<br>A thru W,<br>AA          |
| Receiving Frequency             |   |
| VHF .....                       | 48.25 MHz thru 295.25 MHz                 |
| UHF .....                       | 471.25 MHz thru 863.25 MHz                |

*Specifications are subject to change without prior notice.*

## IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

### SERVICING OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by connecting a 10k ohm Resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. Picture tube in this receiver employs integral implosion protection.
2. Replace with tube of the same type number for continued safety.
3. Do not lift picture tube by the neck.
4. Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.

### X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. When repairing the circuit, be sure not to increase the high voltage to more than 32.0 kV, (at beam 0  $\mu$ A) for the set.
2. To keep the set in a normal operation, be sure to make it function on 28.7 kV  $\pm$  1.5 kV (at beam 1.4 mA) in the case of the set. The set has been factory — Adjusted to the above-mentioned high voltage.
  - ∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3. Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.

### BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety checks.

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators etc.

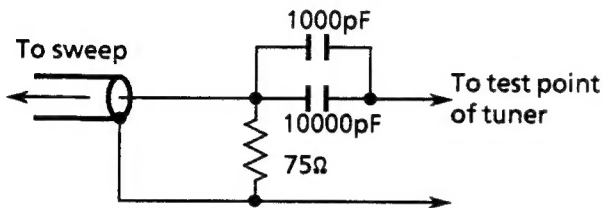
# SERVICE ADJUSTMENT

## PIF/AFT/AGC ADJUSTMENT

### TUNER IFT COIL

The tuner has been factory preset (no adjustment is needed).

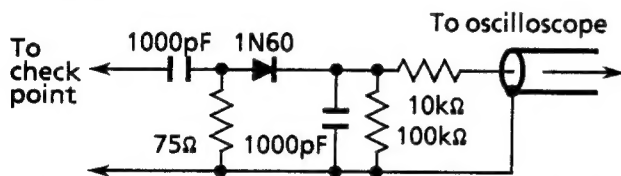
1. Keep the set without any signal input. Set  $V_T$  voltage at 11V in  $V_H$  band.
2. Connect sweep generator's output to the test point of tuner, by using a 75 $\Omega$  DC cut probe.



Connection Diagram of 75 $\Omega$  DC Cut Probe.

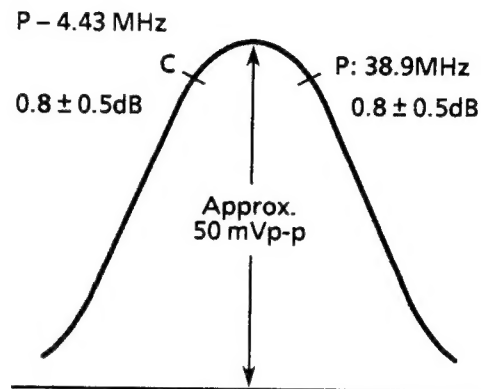
Note: The earth point of sweep generator's probe should be grounded closely to the tuner test point.

3. Output level of sweep generator: 80 dB
4. Connect response lead (low impedance probe with detector) to the IF output terminal of the tuner.



Connection Diagram of Low Impedance Probe (with Detector).

5. RF AGC: 0V.
6. Adjust the tuner IF coils to obtain the waveform as shown figure below.  
Note: For the adjustment, keep the tuner covered with its lid.



Adjust so that "P" and "C" are at the same level.

### VCO FREE-RUN FREQUENCY ADJUSTMENT: T2003

1. Keep the set without any signal input.
2. Make a short-circuit between TP2002 and ground.  
Measure the voltage at TP2001 with a multimeter and record the reading.  
Note: Use a multimeter that has a scale in mV.
3. Connect the sweep generator's output to the IF output terminal of the tuner.
  - Frequency: 38.9MHz (CW)  $\pm$  5kHz.
  - Sweep output level: 80 to 90dB $\mu$ V.
  - Note: Before starting this adjustment, keep IC2001 energized for more than 2 minutes.
4. Break the short-circuit between TP2002 and ground. Adjust T2003 so that the multimeter should read the same voltage as that in the above step 2.
  - Accuracy: Reading in step 2  $\pm$  10mV (3.2kHz/mV).

At this time, observe the waveform at TP201 (detection output) on the oscilloscope screen to make sure there is an output of approx. DC 3V.

  - Range: DC 1V/div.

Note: Check the waveform on the oscilloscope screen for noises or beating. Any noise or beating means maladjustment.

## PIF/AFT/AGC ADJUSTMENT (Continued)

## RF-AGC CUT-IN CONTROL: R219

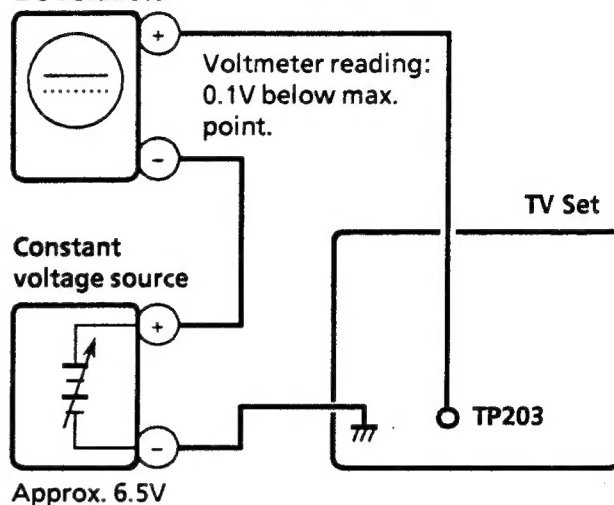
1. Tune the TV set in to the VHF high band (over channel E10) and receive "PAL COLOUR BAR" signal.

- Field intensity:  $57\text{dB} \pm 1\text{dB}\mu\text{V}$   
(with  $75\Omega$  terminated)

Note: Adjust a 50-ohm field intensity meter to 55 to 56dB level if no 50/75 impedance transducer is used. Pay attention to a loss if using an impedance transducer.

2. Connect the oscilloscope or DC voltmeter to TP203.
3. Turn R219 to make the voltage highest.
4. Slowly turn R219 in the opposite direction until the voltage goes down 0.1V from the highest level.
5. Adjust the signal level to 63 to 67dB $\mu\text{V}$  and make sure there is no noise.
6. Now adjust the signal level to 90 to 95dB $\mu\text{V}$  and be sure that there is no cross modulation beat.

Oscilloscope or  
DC Voltmeter



## AFT COIL: T2002

1. Tune the TV set in to the VHF high band (over channel E10) and receive "PAL COLOUR BAR" signal.

- Signal strength: Over 55dB, Below 80dB.

2. Connect oscilloscope to TP201.

- Range: 0.5V/div.
- Sweep time: 20 $\mu\text{sec}/\text{div}$ .
- Synchronization: Horizontal sync.

3. Connect the output of SSG (Standard Signal Generator) to the tuner IF output terminal across a capacitor of 1pF.

- SSG output frequency:  
38.9MHz (CW)  
38.9MHz  $\pm$  5kHz

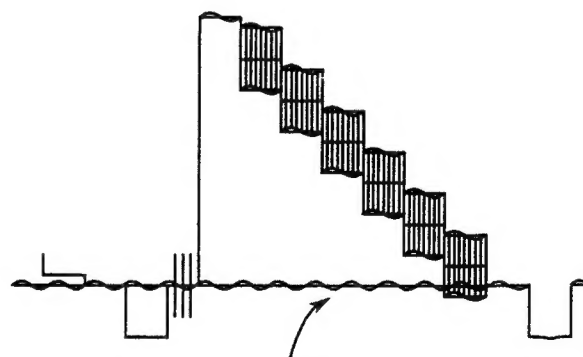
- SSG output level: approx. 50dB

4. Set the preset switch at VHF-H tuning position and adjust FINE button (Up or Down) of tuning control so that the output waveform suffers no beating.

5. Set the preset switch at NORMAL position.

6. Adjust T2002 so that no beating is caused at the output waveform.

- Adjustment error: 38.900MHz  $\pm$  25kHz



Finely adjust to make zero the beating

## SOUND ADJUSTMENT

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### RF-SUB-SOUND ADJUSTMENT: R234

---

1. Receive the "SECAM COLOUR BAR" signal.
  - Sound modulation: 400Hz, 60%.
2. Connect oscilloscope to TP1301.
3. Adjust R234 so that the 400Hz sine waveform is 0.6Vp-p.
  - Adjustment error:  $0.6 \pm 0.04$ Vp-p.

---

### SUB-SOUND ADJUSTMENT: R333

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1. Receive the "PAL COLOUR BAR" signal.
  - Audio signal: 400Hz, 100% modulation
2. Connect the VTVM to TP301.
3. Make sure the SURROUND mode is off.
4. Turn up the sound volume to maximum.
5. Adjust R333 so that the VTVM reading at TP301 be 6.9 Vrms.

---

### NOISE MUTE CHECKING

---

1. Receive the "PAL COLOUR BAR" signal.
  - If not available, receive any broadcast station.
2. Turn up the volume control all the way and make sure sound comes out of the speakers. Then shut off the signal.
3. Make sure the sound mute effect is on.

## PURITY ADJUSTMENT

**Note:** During the adjustment, keep the unit facing the east.

### PURITY ADJUSTMENT

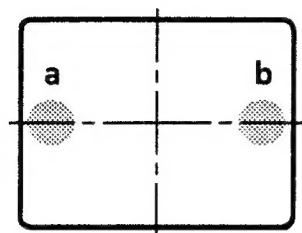
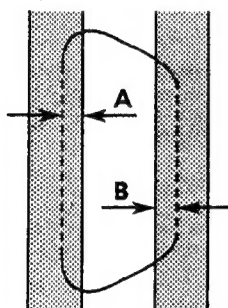
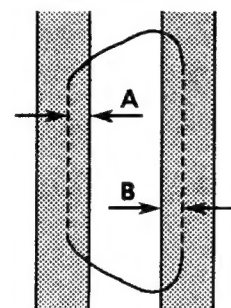


Figure A.

a. Left-hand side



b. Right-hand side



A = B

Figure B. Rank "A" landing

1. Prior to the purity adjustment, warm up the unit with beam current of 1.1mA, for more than 30 minutes.
2. Receive the green signal alone and adjust the Contrast control so that the beam current is 1.1mA.
3. Fully degauss the CRT with the degaussing coil.
  - Vertical  $B_V$ :  $+0.45 \times 10^{-4} \text{T}$  ( $+0.45$  gauss)
  - Horizontal  $B_H$ :  $0 \text{T}$  ( $0$  gauss)
4. Set the purity magnet at the position which gives zero (0) magnetic field.

### Adjustment:

5. Observe the green spots ("a" and "b") with a microscope as shown *Fig. A*, and adjust the purity magnet so that they are at the specified landing position (Rank "A").
6. Set the raster rotation at "0" position (with the unit facing the east).
7. Tighten the screws of the deflection coil.  
Tightening torque:  $11 \text{ kg} \pm 2 \text{ kg}$ .
8. Look at the CRT corners. Apply the magnet sheets so that the landings should be of Rank "A".

## CONVERGENCE ADJUSTMENT

**Note:** During the adjustment, keep the unit facing the east.

### CONVERGENCE ADJUSTMENT

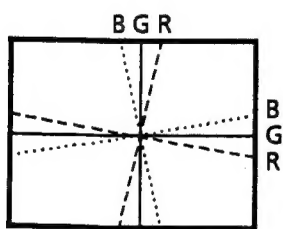
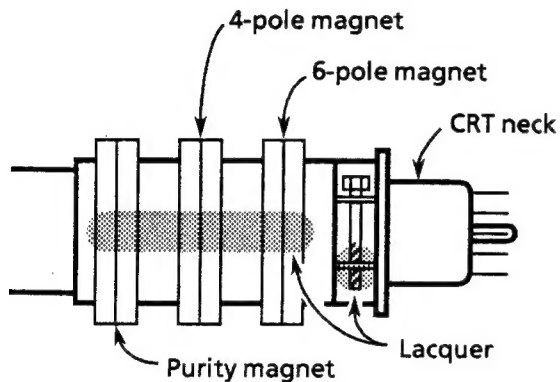
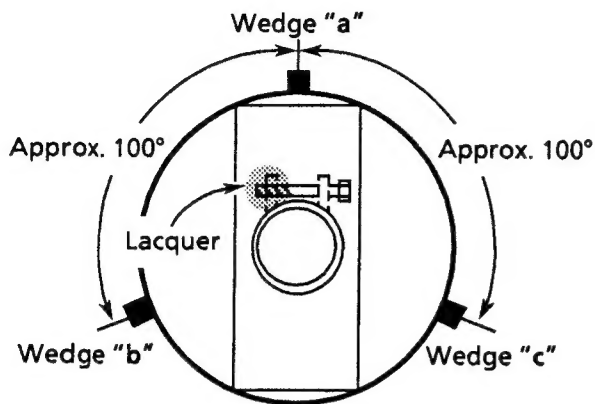


Figure a.

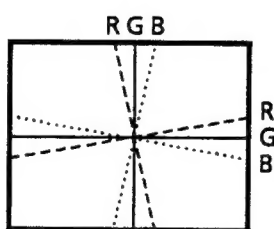


Figure b.

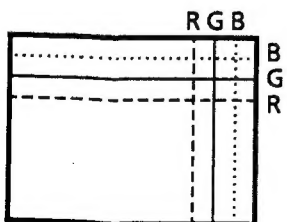


Figure c.

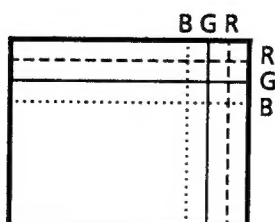


Figure d.

This adjustment should be performed after the purity magnet adjustment.

1. Receive "CROSSHATCH PATTERN" signal.
2. Set the Brightness control and Contrast control at MAX position.

### STATIC CONVERGENCE

3. Adjust the opening degree of the 4-pole magnet and rotate the magnet to converge red and blue lines.
4. Adjust the opening degree of the 6-pole magnet and rotate the magnet to converge red, blue and green lines.

### DYNAMIC CONVERGENCE

5. Dynamic convergence (convergence of the three colour fields) at the edges of CRT screen is accomplished in the following manner.

#### Convergence in Fig. a:

Insert wedge "a" between the deflection yoke and CRT, and tilt the deflection yoke upward until the mis-convergence shown in Fig. a is corrected.

#### Convergence in Fig. b:

Insert wedges "b" and "c" between the deflection yoke and CRT, and tilt the deflection yoke until the mis-convergence shown in Fig. b is corrected.

#### Convergence in Fig. c:

Insert wedge "c" deeply between the deflection yoke and CRT, and tilt the deflection yoke to right until the mis-convergence shown in Fig. c is corrected.

#### Convergence in Fig. d:

Insert wedge "b" deeply between the deflection yoke and CRT, and tilt the deflection yoke to left until the mis-convergence shown in Fig. d is corrected.

6. Stick the three wedges onto the CRT, and apply glass tapes thereon.
7. Apply lacquer to the deflection yoke screw, magnet unit (made of purity, 4-pole and 6-pole magnets) and magnet unit screw.

After the adjustment, receive either the Red or the Blue signal and check that there is no mixture with the other colour signal.



## HORIZONTAL AND VERTICAL CIRCUIT ADJUSTMENT

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### VERTICAL LINEARITY: R514

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- |  |   |
|--|---|
| <ol style="list-style-type: none"> <li>1. Receive the "MONO SCOPE PATTERN" signal.</li> <li>2. Press the video "N" key of the remote controller.</li> <li>3. Roughly adjust Vertical Size control R510 to given an 8% overscan.</li> </ol> | <ol style="list-style-type: none"> <li>4. Adjust R514 for optimum vertical linearity. This is achieved by making the upper and lower halves of the circular pattern symmetric.</li> </ol> |
|--|---|

---

### VERTICAL CENTER and VERTICAL SIZE

---

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• S501: Vertical Center</li> <li>• R510: Vertical Size</li> </ul> <ol style="list-style-type: none"> <li>1. Receive the "MONO SCOPE PATTERN" signal.</li> <li>2. Press the video "N" key of the remote controller.</li> </ol> | <ol style="list-style-type: none"> <li>3. Adjust Vertical Center switch S501 at the position where the pattern's vertical Center coincides with the CRT's geometrical vertical Center. S501 is a step-by-step rotary switch. Set it at the optimum position.</li> <li>4. Adjust Vertical Size control R510 to obtain an 8% overscan.</li> </ol> |
|--|---|

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### HORIZONTAL CENTER and HORIZONTAL SIZE

---

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>• R602: Horizontal Center</li> <li>• L606: Horizontal Size</li> </ul> <ol style="list-style-type: none"> <li>1. Receive the "MONO SCOPE PATTERN" signal and roughly adjust Horizontal Size control L606 to give about 8% overscan.</li> <li>2. Press the "N" key of the remote controller.</li> </ol> | <ol style="list-style-type: none"> <li>3. Align the pattern's horizontal Center with the CRT's geometrical horizontal Center by adjusting Horizontal Center control R602.</li> <li>4. Adjust Horizontal Size control L606 to give and 8% overscan.</li> </ol> |
|--|---|

## VIDEO CIRCUIT ADJUSTMENT

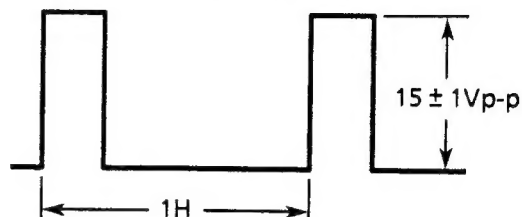
### CRT CUT-OFF and SUB-BRIGHTNESS ADJUSTMENT

- R403 : Sub Bright
- R2816: Red Bias control
- R2817: Green Bias control
- R2818: Blue Bias control
- Screen control (a part of T601)
- R2811: Green Drive control
- R2812: Blue Drive control

**Note:** Prior to this adjustment, warm up the unit with the beam current of  $1100\ \mu\text{A}$  for more than 30 minutes.

1. Receive "MONOSCOPE PATTERN" signal.
2. Set R-bias control at MIN (0/10) position.  
Set G-bias control at MIN (0/10) position.  
Set B-bias control at MIN (0/10) position.  
Set G-drive control at CENTER (5/10) position.  
Set B-drive control at CENTER (5/10) position.
3. Turn on the video "N" key on the remote controller.
4. Set the Contrast control at MIN position.
5. Set the Screen control at MIN (0/10) position.
6. Connect the oscilloscope to TP2801 (red cathode).

7. Set service switch S401 at the horizontal line position.
8. Adjust Sub-Brightness control R403 to obtain a blanking pulse level of  $15\text{V} \pm 1\text{Vp-p}$  at TP2801.



9. Disconnect the oscilloscope from TP2801.
10. Slowly turn the Screen control clockwise and stop it where the horizontal raster appears slightly, in one of the three colours.
11. Carefully adjust the Bias controls of the other two colours until the horizontal raster becomes white.
12. Turn the Screen control counterclockwise until the horizontal raster just disappears.

### WHITE BALANCE and BACK GROUND

- R2811: Green Drive control
- R2812: Blue Drive control
- R416: Sub-Contrast control

**Note:** Prior to this adjustment, warm up the unit with the beam current of  $1100\ \mu\text{A}$  for more than 30 minutes.

1. Receive "MONOSCOPE PATTERN" signal.
2. Press the video "N" key of the remote controller. Contrast will thereby become maximum and brightness medium.
3. Connect the ammeter to TP601 and TP602.  
(Full scale: 3 mA)

4. Adjust the Sub-Contrast control to obtain a beam current of approx. 1.4 mA. (rough adjustment)
5. Adjust Green Drive and Blue Drive controls to obtain a colour temperature of  $7500^\circ\text{K}$  (white).
6. Reduce the beam current to approx.  $200\ \mu\text{A}$  by adjusting the Contrast and Brightness controls, and check the background colour. If the colour temperature is not  $7500^\circ\text{K}$ , repeat the adjustment in step 5.

### SUB-CONTRAST CONTROL: R416

**Note:** Prior to this adjustment, warm up the unit with the beam current of  $1100\ \mu\text{A}$  for more than 30 minutes.

1. Receive "MONOSCOPE PATTERN" signal.
2. Press the video "N" key of the remote controller. Contrast will thereby become maximum and brightness medium.
3. Connect the ammeter between TP601 (–) and TP602 (+), and select the 3mA range.

4. Adjust Sub-Contrast control to obtain a beam current of 1.4 mA.

**Note:**

Beam current should become approx. 1.45 mA when both the Contrast and Brightness controls are set to maximum.

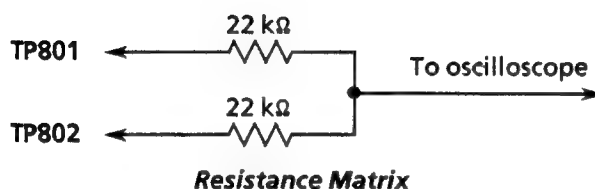
## CHROMA CIRCUIT ADJUSTMENT "PAL"

### PAL CHROMA ADJUSTMENT

- R1810: 1H-delay amp. control
- T1801: 1H-delay phase control

Note: PIF/AFT/AGC adjustments should have been completed before starting this adjustment.

1. Receive the "PAL COLOUR BAR" signal.
2. Connect the following resistance matrix to TP801 and TP802, to which an oscilloscope is connected.



3. Set service switch S401 at the Video Cut position to cut off the Y-signal.
4. Press the video "N" key of the remote controller.
5. Operating the colour control key on the remote controller, adjust the difference between the green and magenta signal levels to 1.5Vp-p as shown in Fig. A.
6. Adjust R1810 and T1801 so that the output waveform becomes as shown in Fig. B.
7. Set service switch S401 to the centre position.

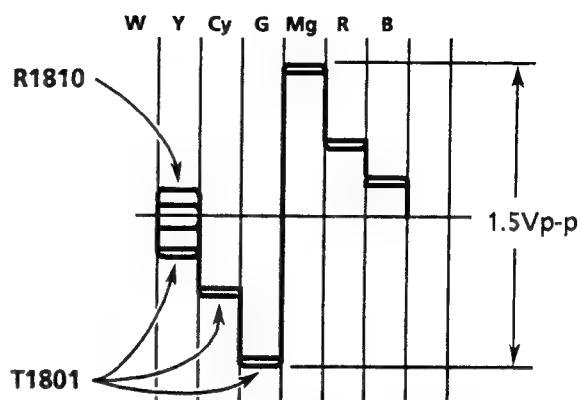


Figure a. Waveform before the adjustment

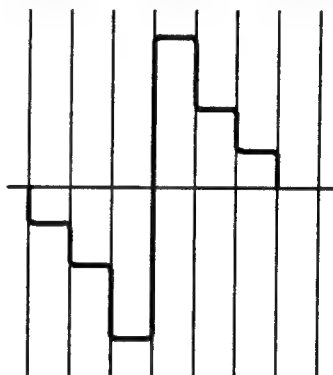
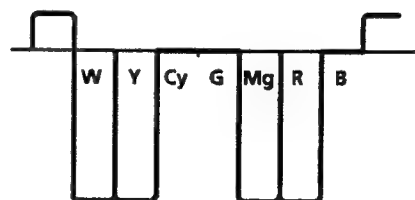


Figure b. Waveform after the adjustment

### PAL SUB-COLOUR: R1804

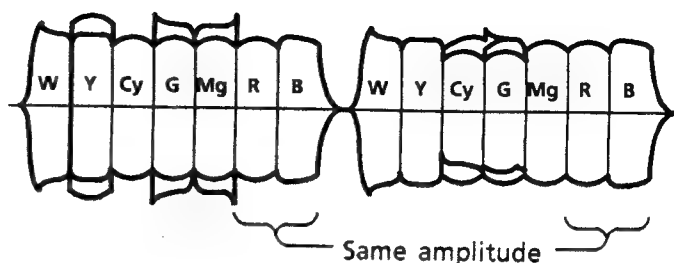
1. Receive the "PAL COLOUR BAR" signal.
2. Turn on the video "N" key of the remote controller.
3. Connect the oscilloscope to TP2801 (red cathode).
  - Range: 20V/div.
  - Sweep time: 20μsec/div.
4. Adjust R1804 so that the white signal (75%) and red signal have the same level as shown below.



## CHROMA CIRCUIT ADJUSTMENT "SECAM"

### BELL FILTER ADJUSTMENT: T1903

1. Receive "SECAM COLOUR BAR" signal.
2. Connect oscilloscope to TP901 with the following settings.
  - Range: AC 0.05 V/div.
  - Sweep Time: 20  $\mu$ sec/div.
  - Probe: 1/10 (30pF, 10M $\Omega$  or more)
3. Adjust the Bell Filter (T1903) so that the red and blue portions of the colour bar signal should have the same amplitude.



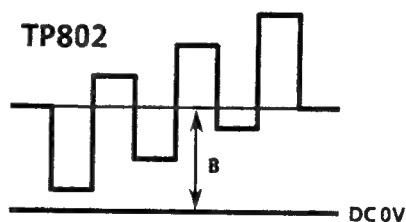
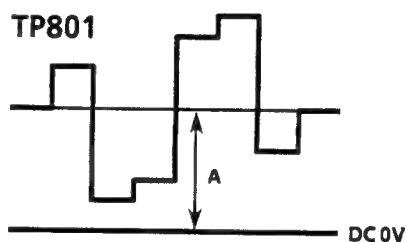
### SECAM KILLER ADJUSTMENT: T1904

1. Receive "SECAM COLOUR BAR" signal.
2. Connect oscilloscope to TP902 with the following settings.
  - Range: DC 1V/div.  
(Adjust vertical position properly.)
  - Sweep Time: 20  $\mu$ sec/div.
3. Adjust T1904 to obtain maximum DC voltage (approx. 7.5V) at TP902.

### B-Y (T1901), R-Y (T1902) DISCRIMINATOR ADJUSTMENT

**Note:** Connect a 0.001  $\mu$ F capacitor to TP801 and TP802 respectively to filter out interference noise.

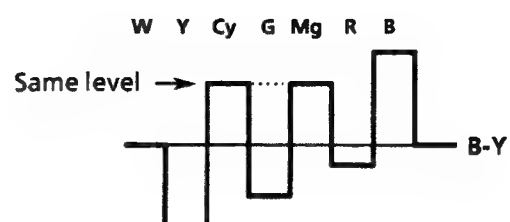
1. Receive "SECAM COLOUR BAR" signal.
2. Connect the oscilloscope (with two channels) to TP801 (R-Y) and the TP802 (B-Y), both located on the CRT Socket Unit (PWB-C) of the set.
  - Range: DC 2V/div.
  - Sweep Time: 10  $\mu$ sec/div.
3. Set service switch S401 at the Video Cut position to cut-off the Y-signal.
4. Set both the Contrast and Brightness controls to their maximum positions.
5. Adjust T1901 and T1902 so that the DC output levels obtained when the colour control is set to minimum (black and white level) and those when set to 100% colour saturation become the same.
6. Set service switch S401 to the center position.



## CHROMA CIRCUIT ADJUSTMENT "NTSC"

### SUB-HUE: R1805

1. Receive "NTSC COLOUR BAR" signal.
2. Connect oscilloscope to TP802 (B-Y).
3. Turn on the video "N" key of the remote controller.
4. Set service switch S401 to the Video Cut position to cut-off the Y-signal.
5. Operating the Colour control key on the remote controller, adjust the B-Y waveform to approx. 3Vp-p.
6. Adjust Sub-Hue control R1805 so that the waveform is obtained.
7. Set service switch S401 to the center position.



## PROTECTOR PERFORMANCE CHECK

### BEAM PROTECTOR

1. Receive "MONO SCOPE PATTERN" signal.
2. Adjust the Contrast control to maximum.
3. Adjust the Brightness control to maximum.
4. Make the collector and emitter of Q2801 short-circuited.
5. Confirm that the protector is activated and selects the stand-by mode.

### HIGH VOLTAGE PROTECTOR

1. Receive "MONO SCOPE PATTERN" signal.
2. Connect the bias box across R675.
3. Check the functioning of the H.V. protector with different voltages applied through the bias box as follows:
  - It should not operate at 20V.
  - It should operate at 24V.

## PICTURE CONTROL KEY PERFORMANCE CHECK

### CONTRAST KEY

1. Receive "MONO SCOPE PATTERN" signal.
2. Using the picture select switch, call the contrast mode.
3. Confirm that the screen contrast changes when the Up/Down key is pressed.

### SURROUND

1. Set the Surround switch in the front-door to S-WIDE.
2. Push the Surround switch of Remote Controller and make sure that the surround LED is light-up.

### COLOUR KEY

1. Receive "NTSC COLOUR BAR" signal.
2. Using the picture select switch, call the colour mode.
3. Confirm that the colour changes when the Up/Down key is pressed. (The picture should be completely discoloured when the colour level is set to minimum.)

### CHANNEL SIGN DISPLAY COLOUR

Make sure all the channel signs (Channels 1 thru 39) are displayed in green.

### BRIGHTNESS KEY

1. Receive "MONO SCOPE PATTERN" signal.
2. Using the picture select switch, call the brightness mode.
3. Use the Up/Down key to make sure the black level changes.

### BLUE BACK SWITCH

Turn on the blue back switch. With no signal input, make sure the screen background turns blue. Turn it off to see if the blue back effect is cut-off.

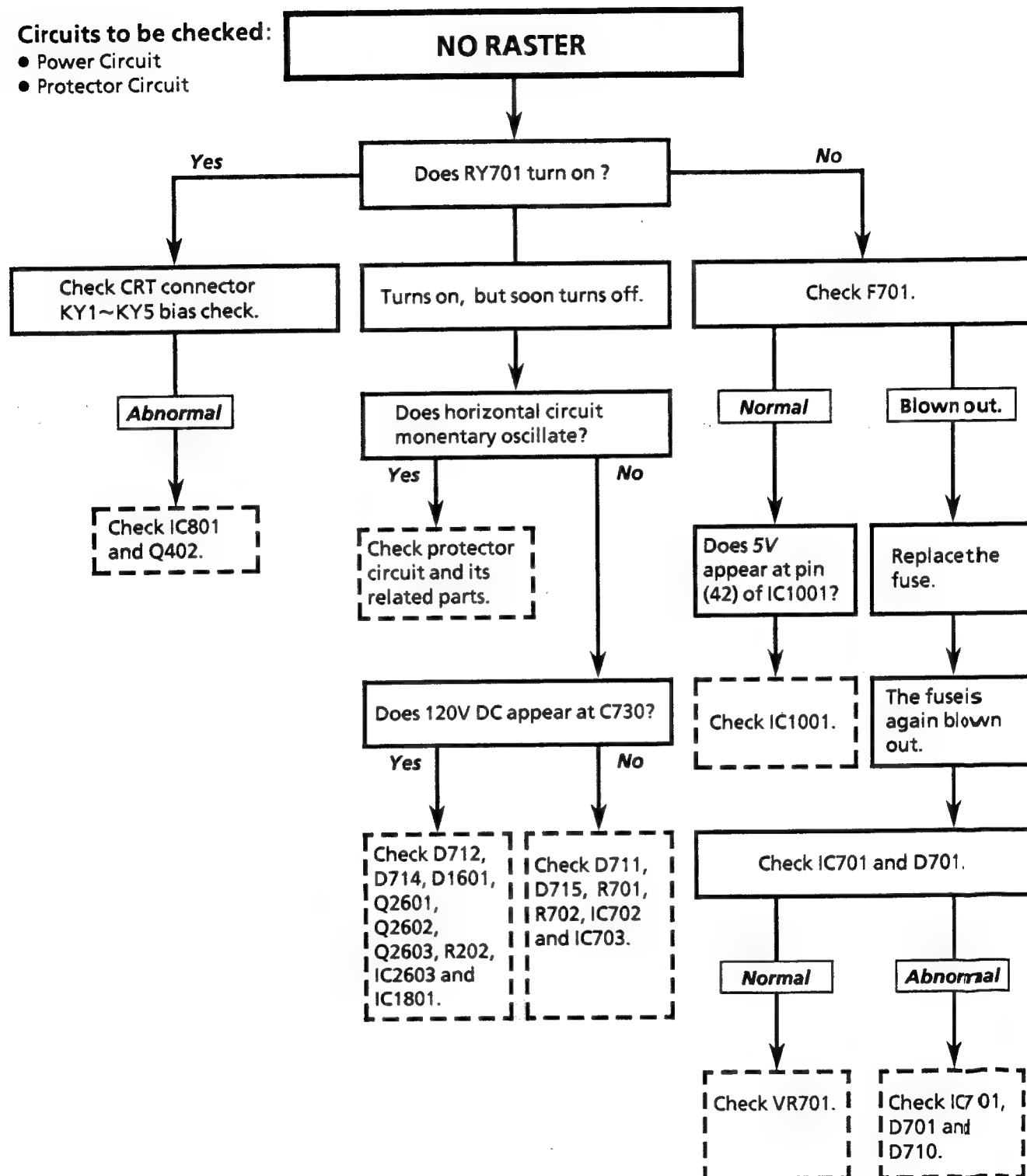
### TINT KEY

1. Receive "NTSC COLOUR BAR" signal.
2. Using the picture select switch, call the tint mode.
3. Use the Up/Down key to make sure the tint on the screen changes: yellowish at Up(+) and reddish at Down(-).

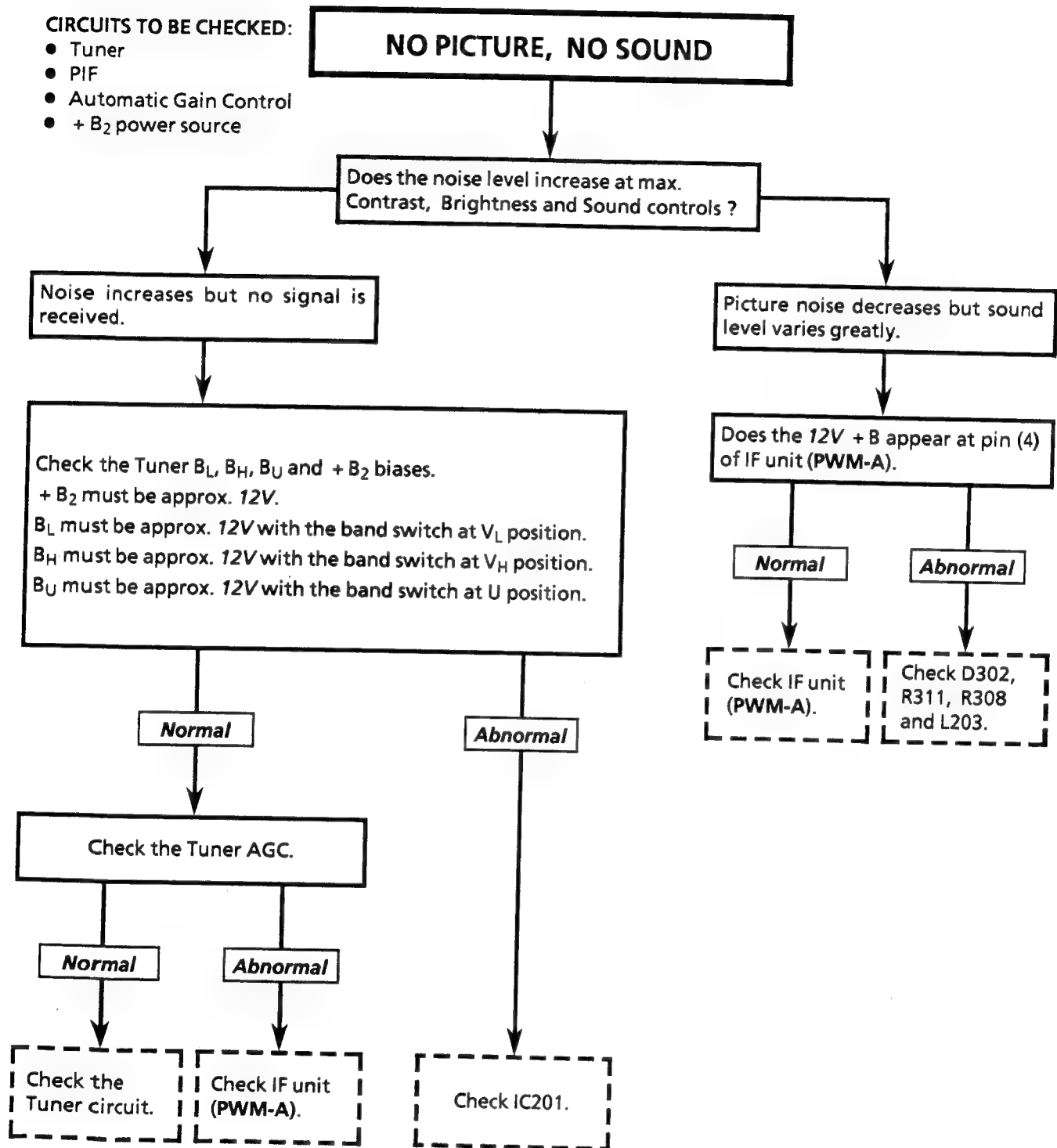
## TROUBLE SHOOTING TABLE

Circuits to be checked:

- Power Circuit
- Protector Circuit



## TROUBLE SHOOTING TABLE (Continued)

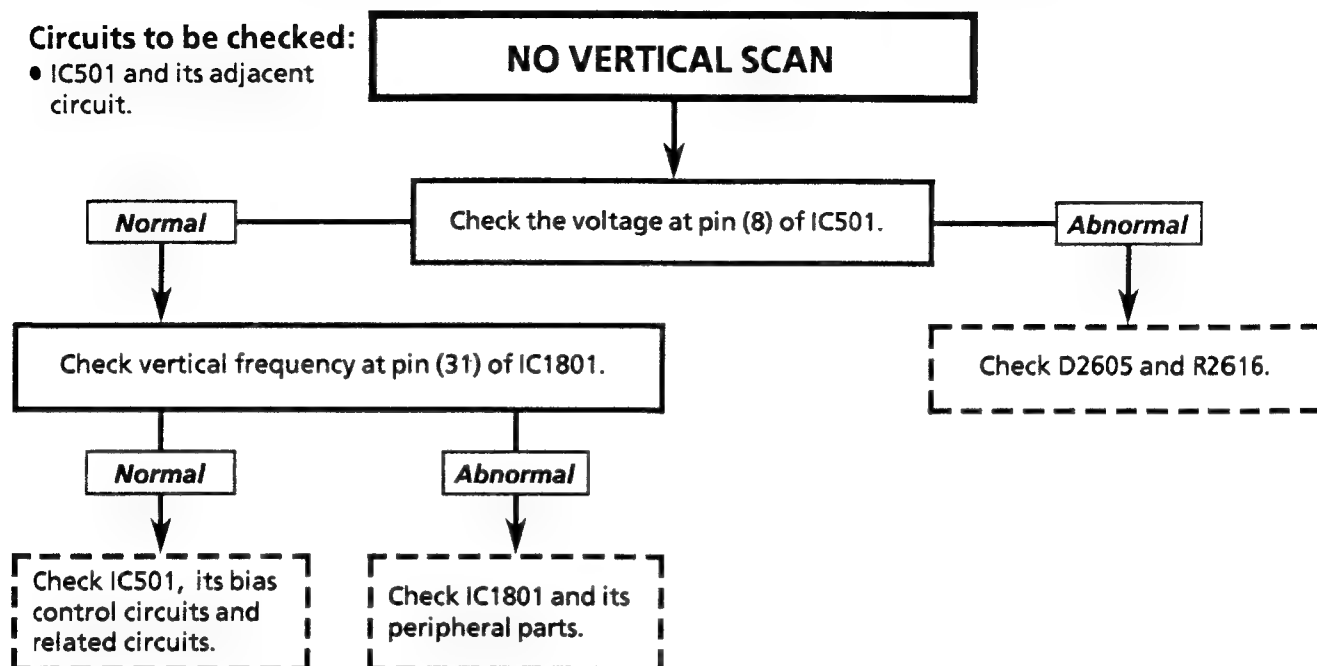




## TROUBLE SHOOTING TABLE (Continued)

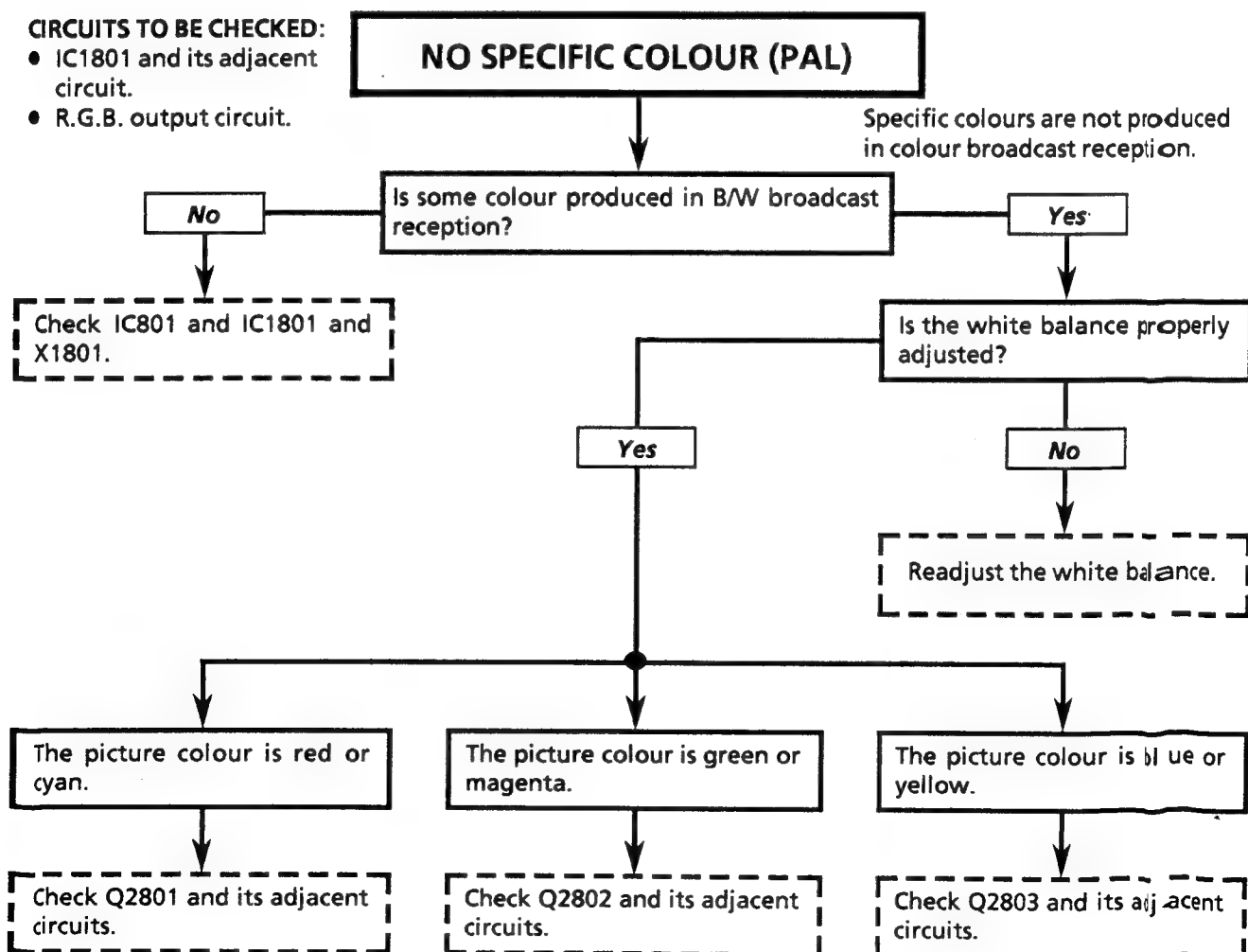
## Circuits to be checked:

- IC501 and its adjacent circuit.



## CIRCUITS TO BE CHECKED:

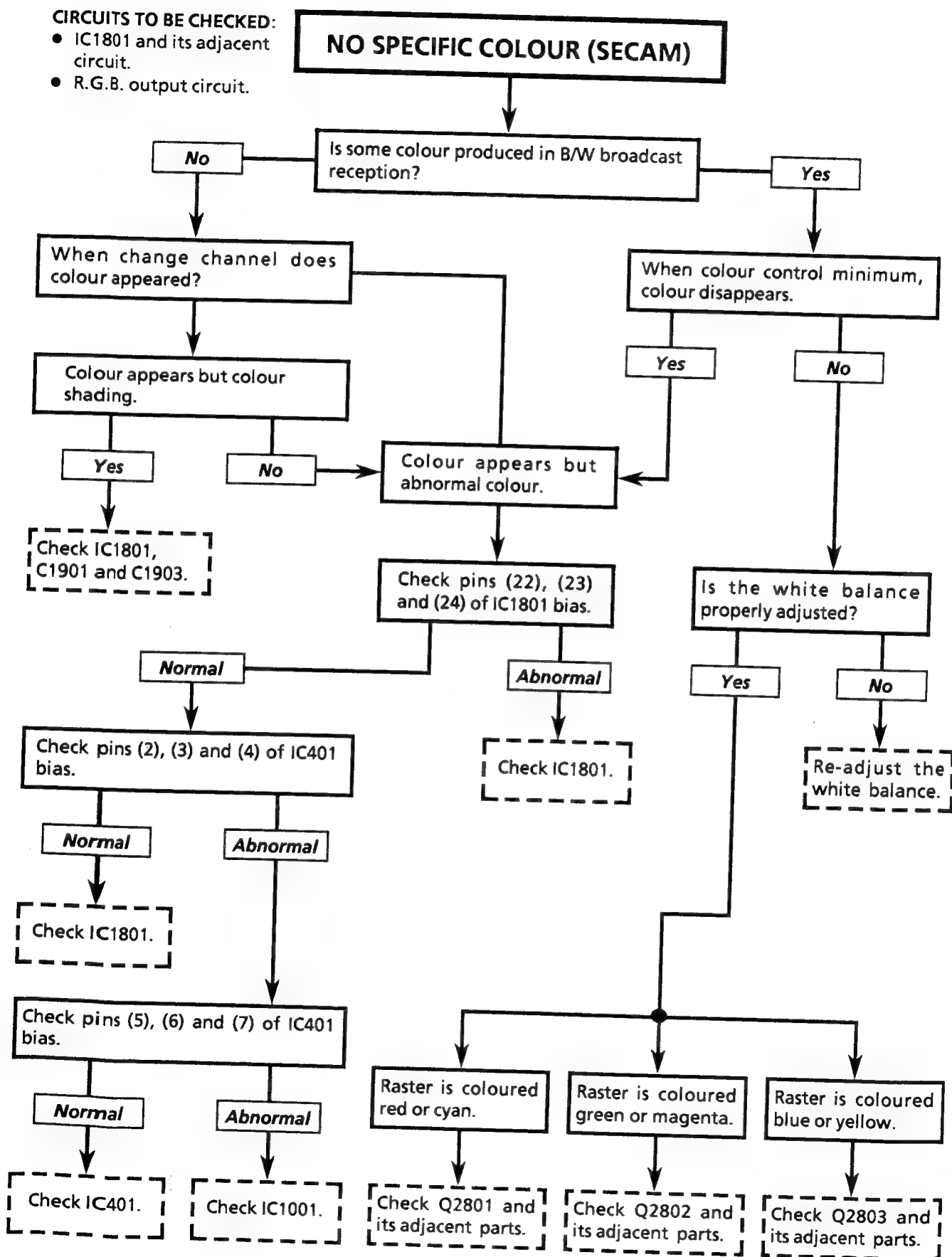
- IC1801 and its adjacent circuit.
- R.G.B. output circuit.



# TROUBLE SHOOTING TABLE (Continued)

## CIRCUITS TO BE CHECKED:

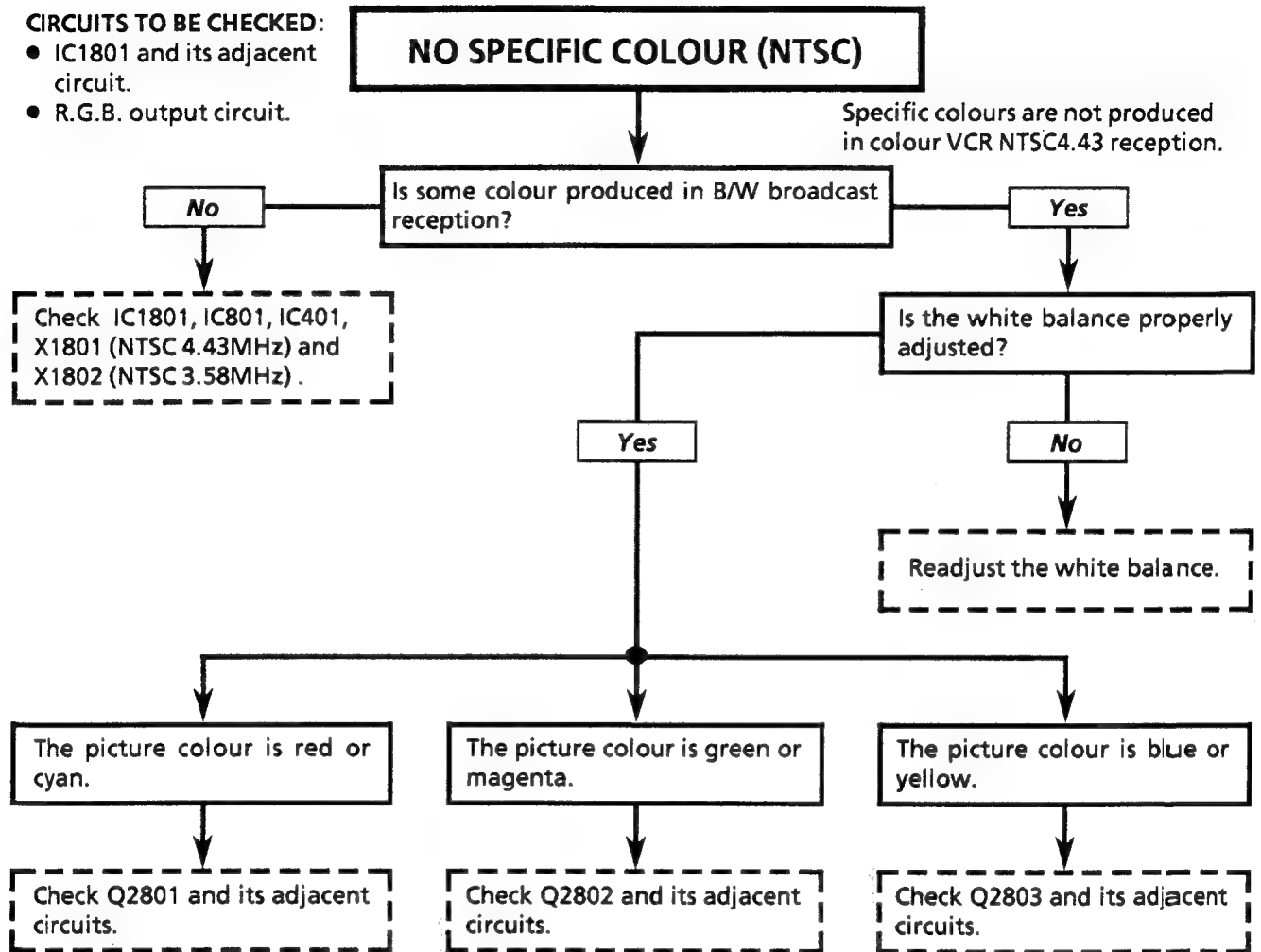
- IC1801 and its adjacent circuit.
- R.G.B. output circuit.



## TROUBLE SHOOTING TABLE (Continued)

### CIRCUITS TO BE CHECKED:

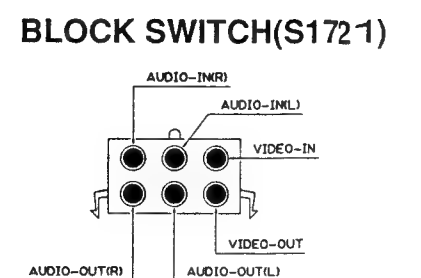
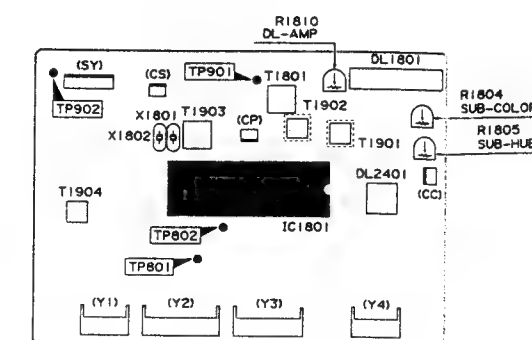
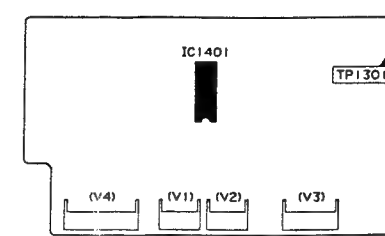
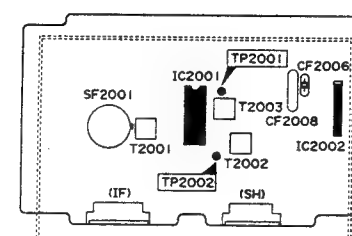
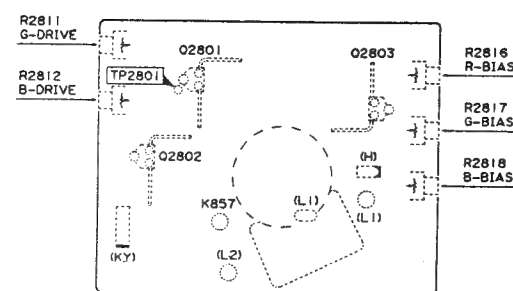
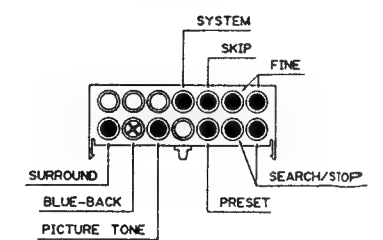
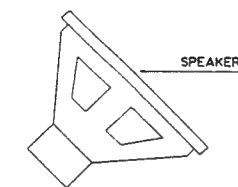
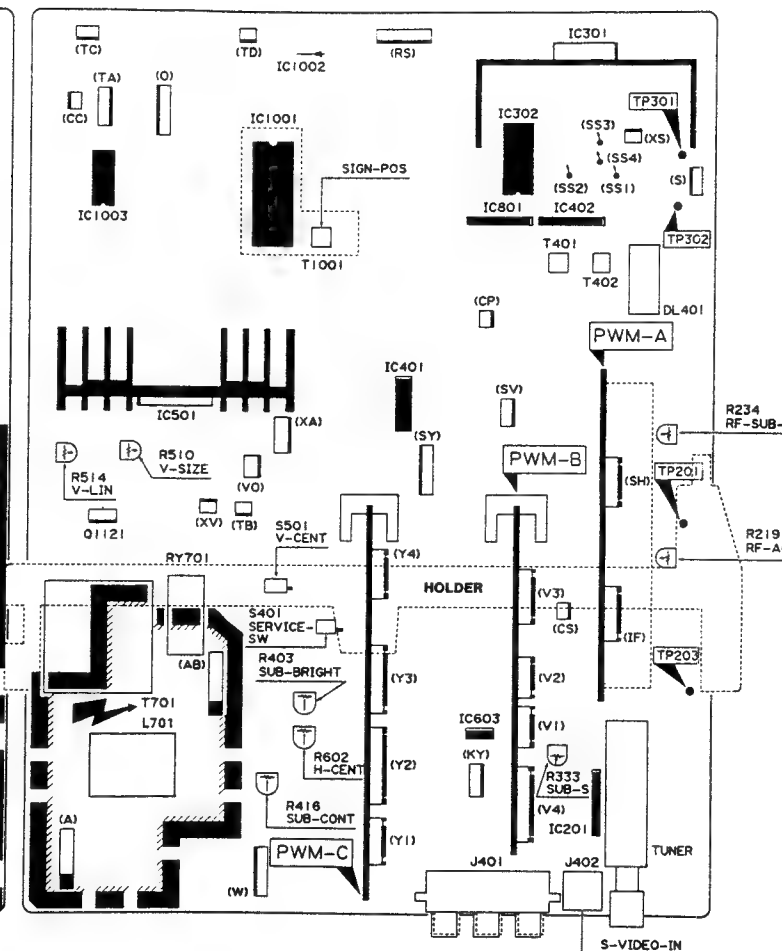
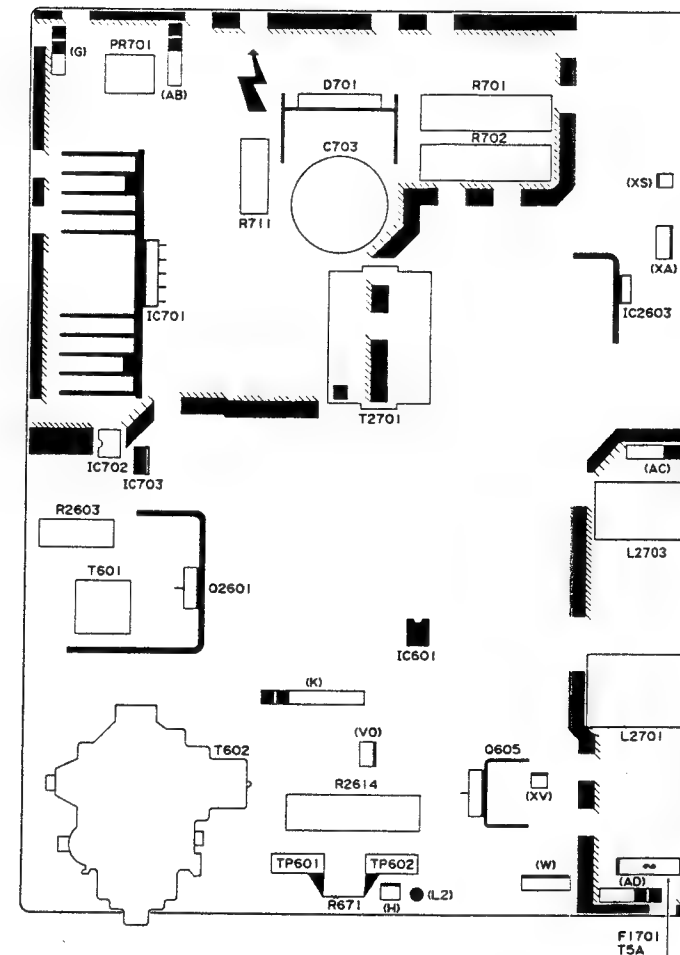
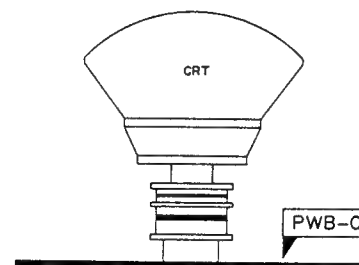
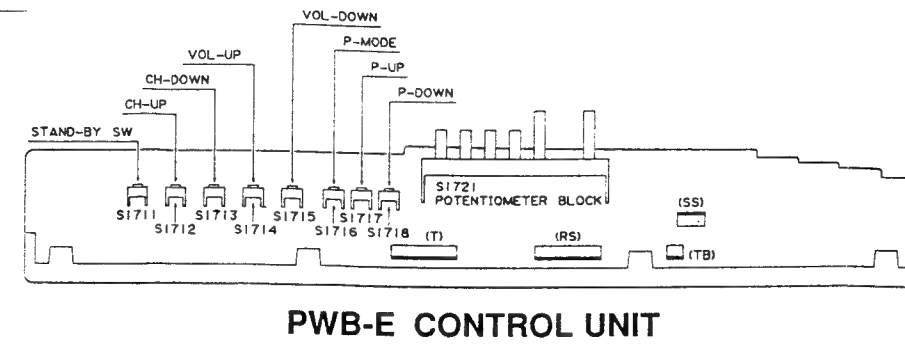
- IC1801 and its adjacent circuit.
- R.G.B. output circuit.



## Memo

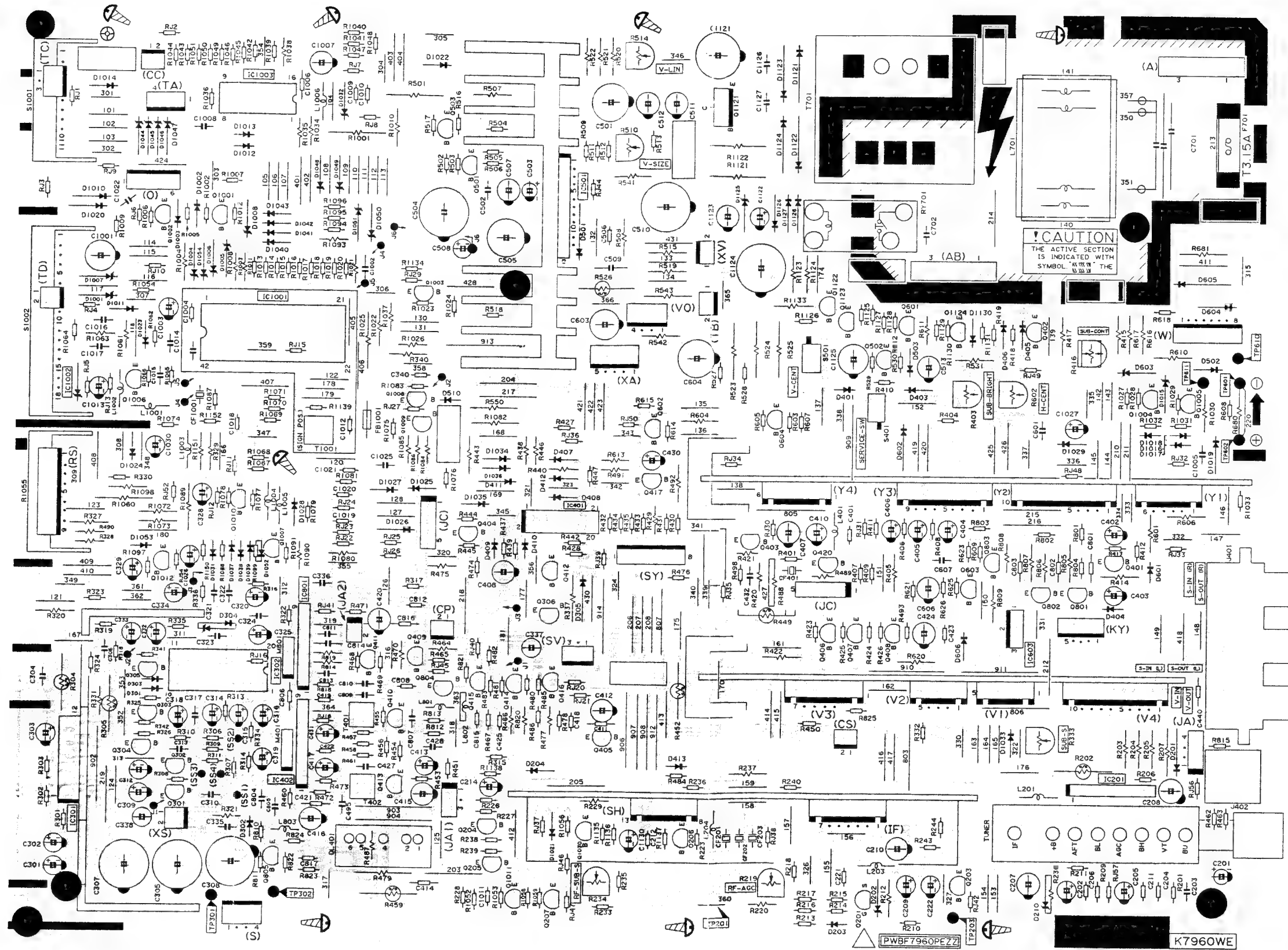
This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

|  |   |
|--|---|
|  | A |
|  | B |
|  | C |
|  | D |
|  | E |
|  | F |
|  | G |
|  | H |



## PRINTED WIRING BOARD ASSEMBLIES

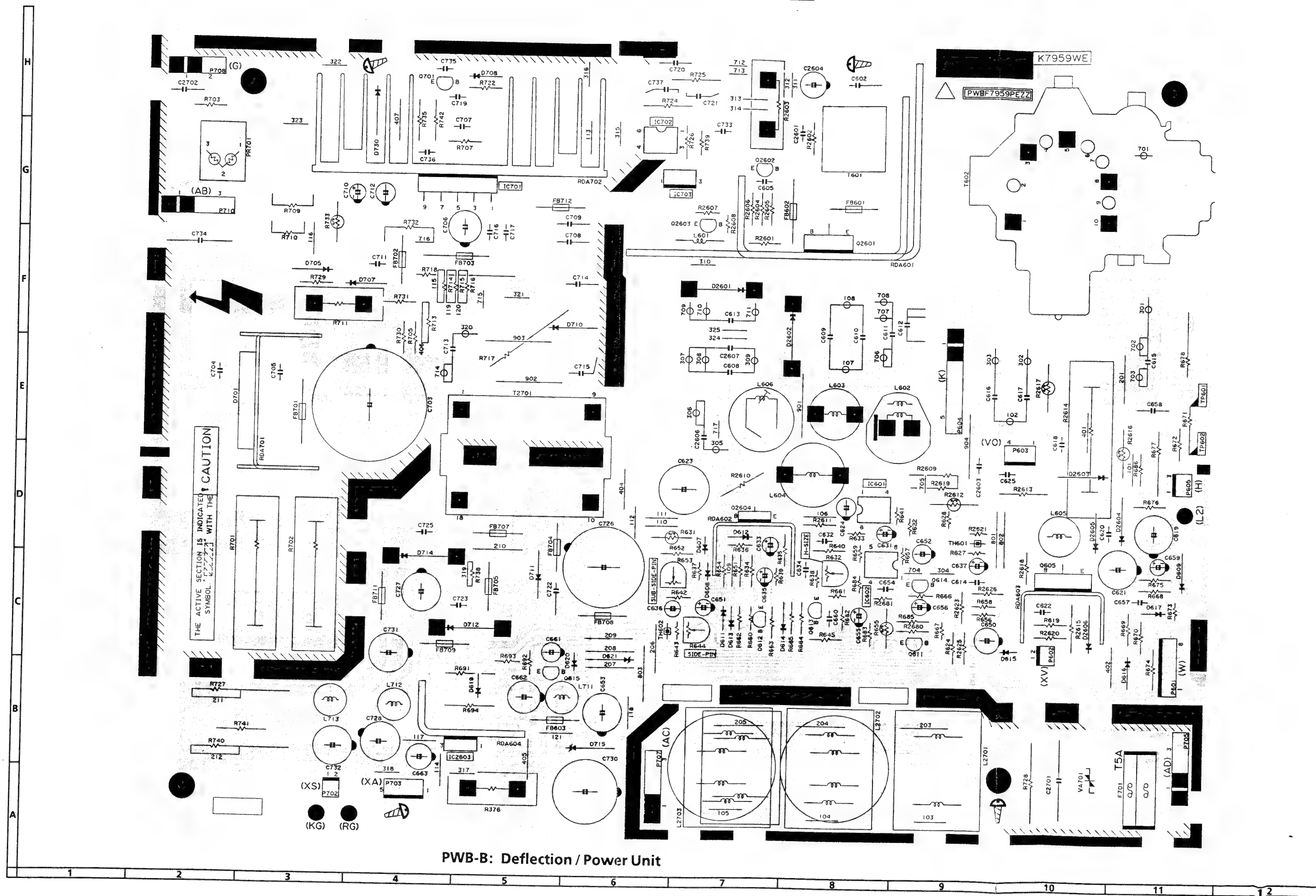
(All the PWBs here are shown as viewed from their wiring sides)

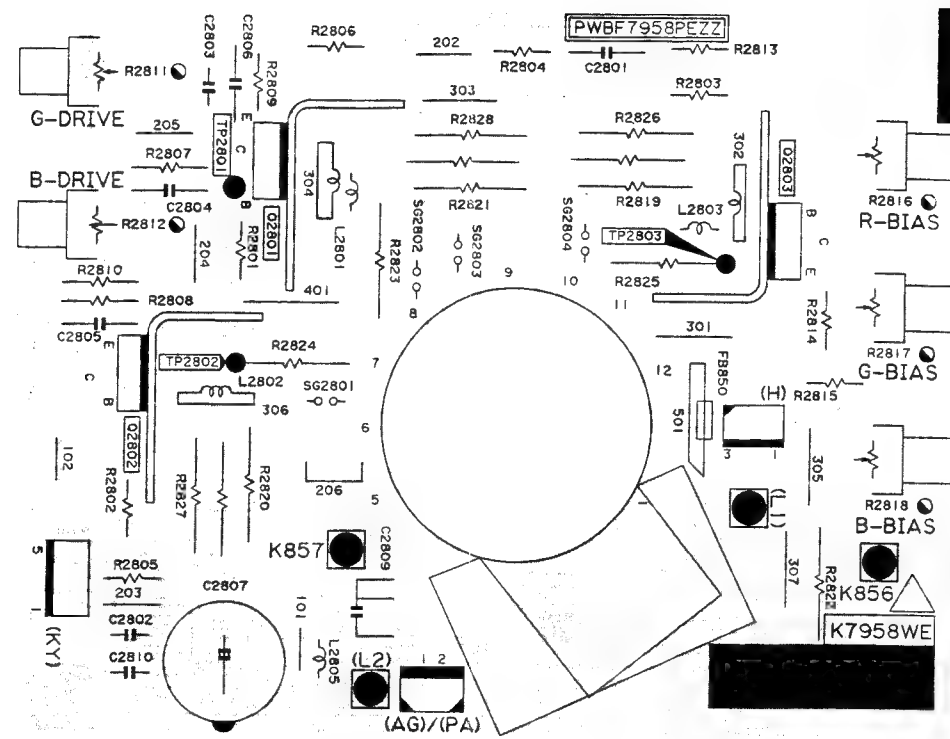


PWB-A: Mother Unit

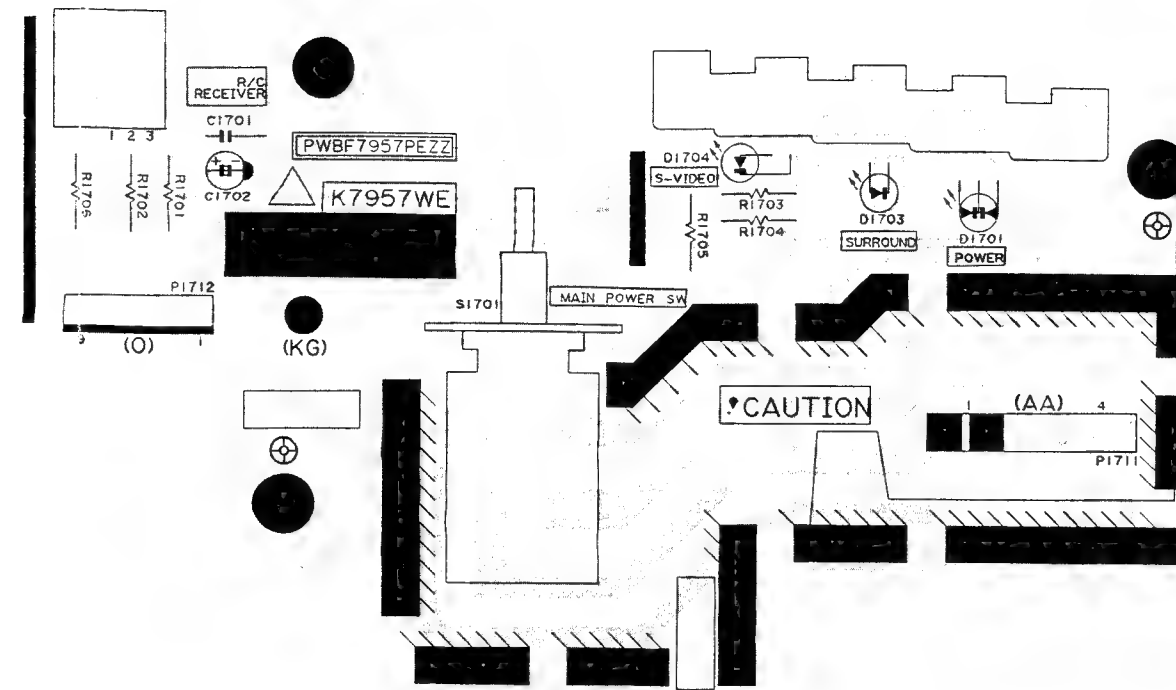
25AN1(B)

25AN1(B)

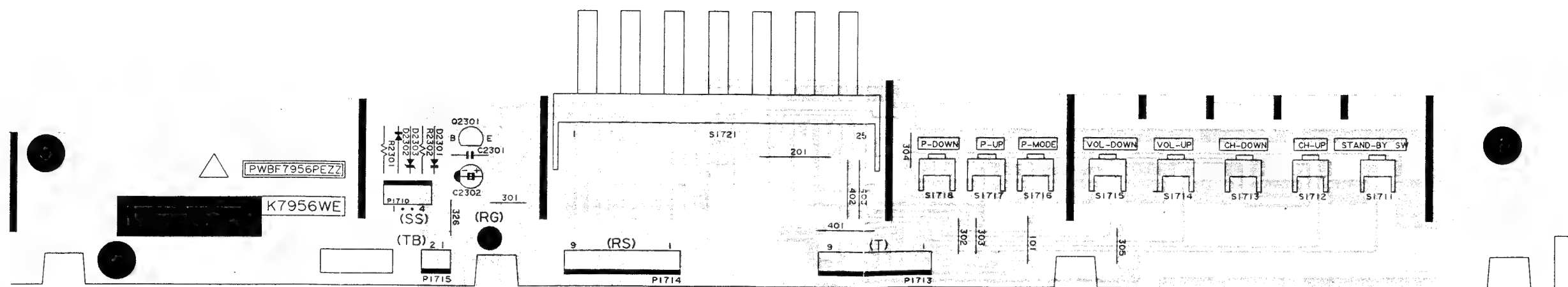




PWB-C: CRT Socket Unit

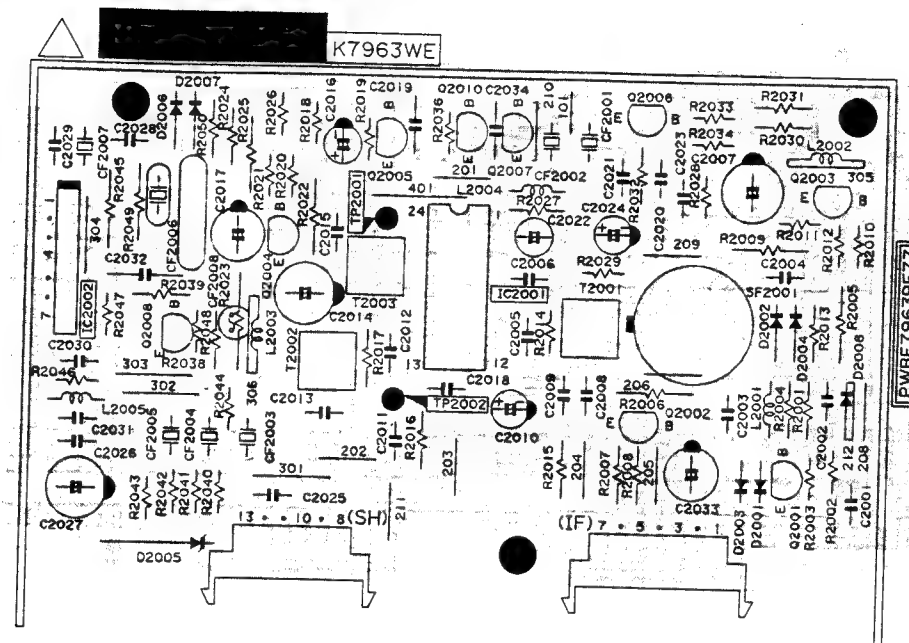


PWB-D: LED Unit

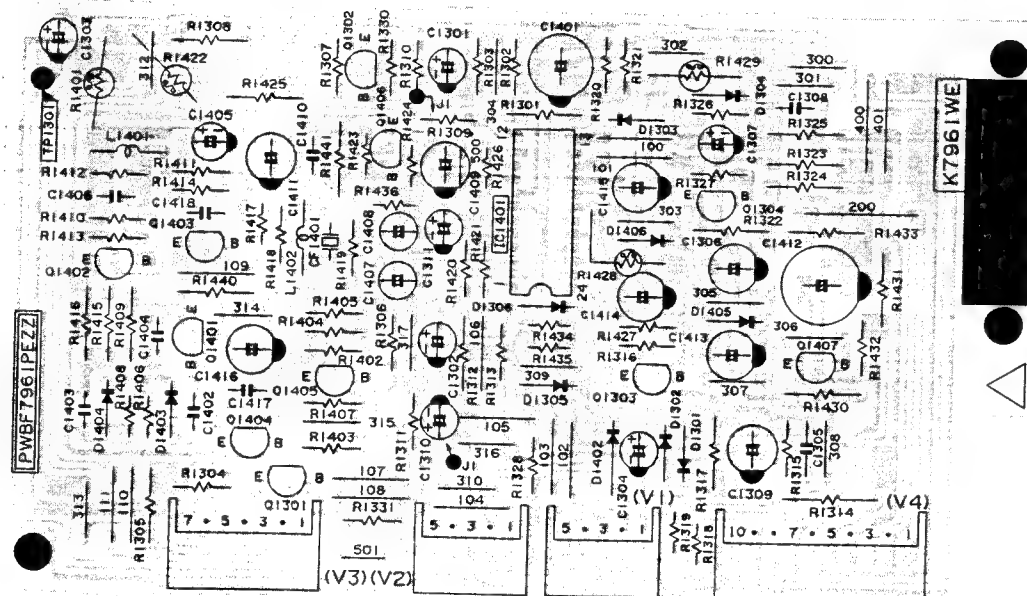


PWB-E: Control Unit

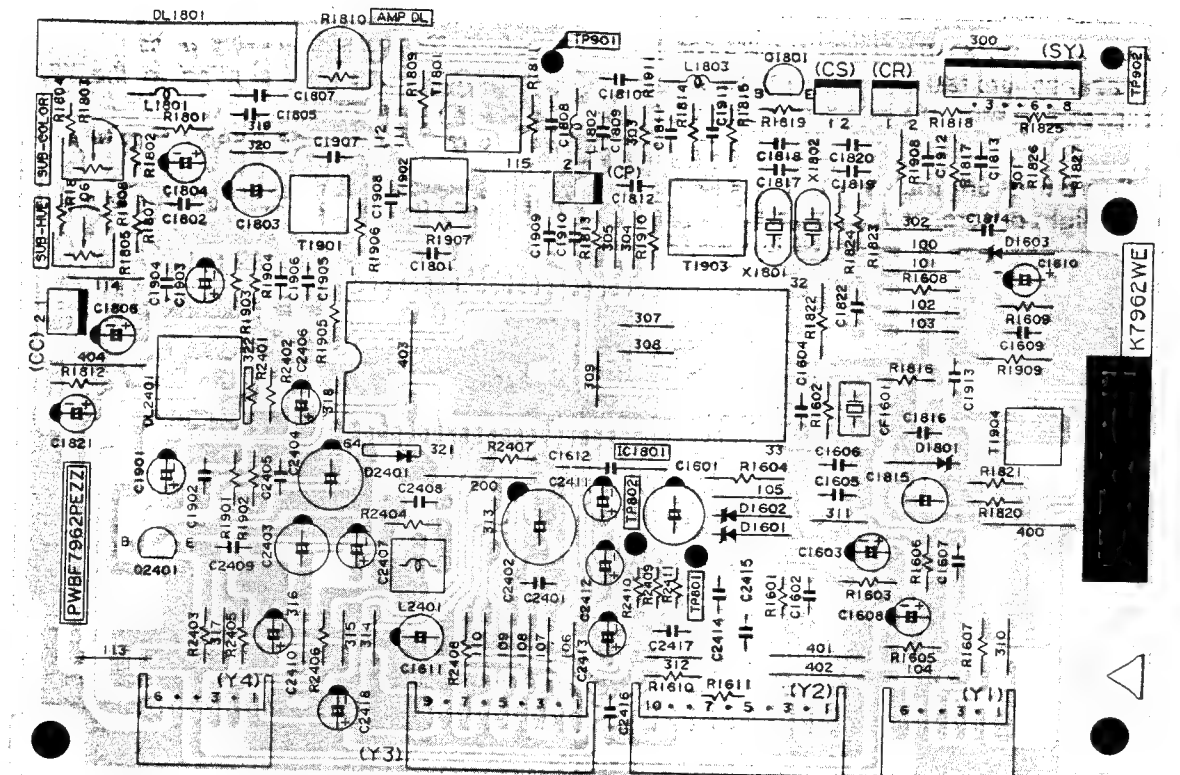




PWM-A: IF Unit



PWM-B: AV Unit




PWM-C: VCI Unit

## DESCRIPTION OF SCHEMATIC DIAGRAM

### SERVICE PRECAUTION:

The area enclosed by this line ( — — — ) is directly connected with AC Mains Voltage. When servicing the area, connect an isolating transformer between TV receiver and AC line to eliminate hazard of electric shock.

PARTS MARKED WITH "△" (  ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

### CAUTION:

This circuit diagram is original one, therefore there may be a slight difference from yours.

### NOTES:

#### Voltage Measurement Conditions

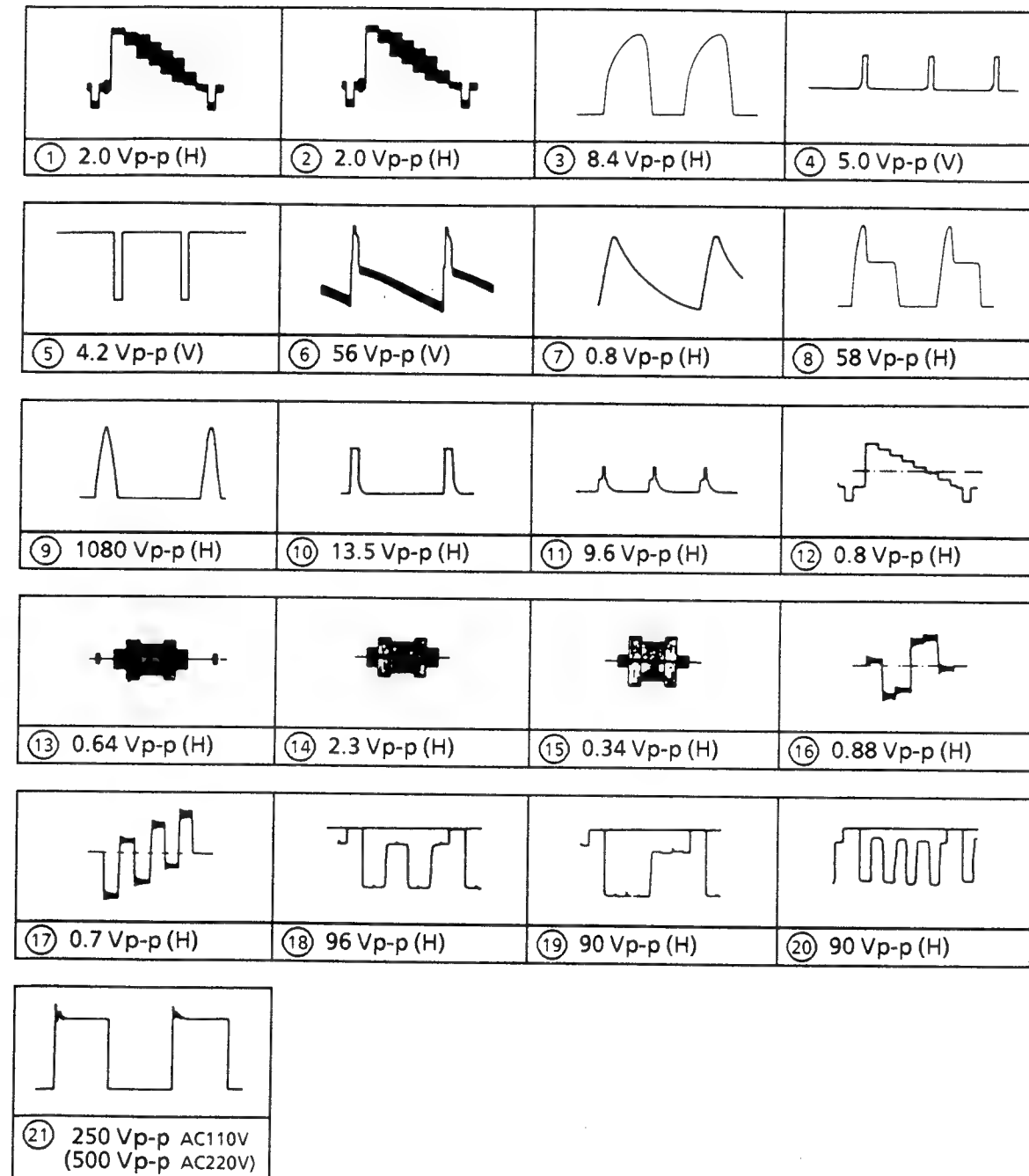
1. The voltage without parenthesis represents the value measured with PAL colour signal.
2. The voltage in parenthesis represents the value measured with no signal.
3. All the voltages were measured by using a high impedance voltmeter.

#### Waveform Measurement Conditions

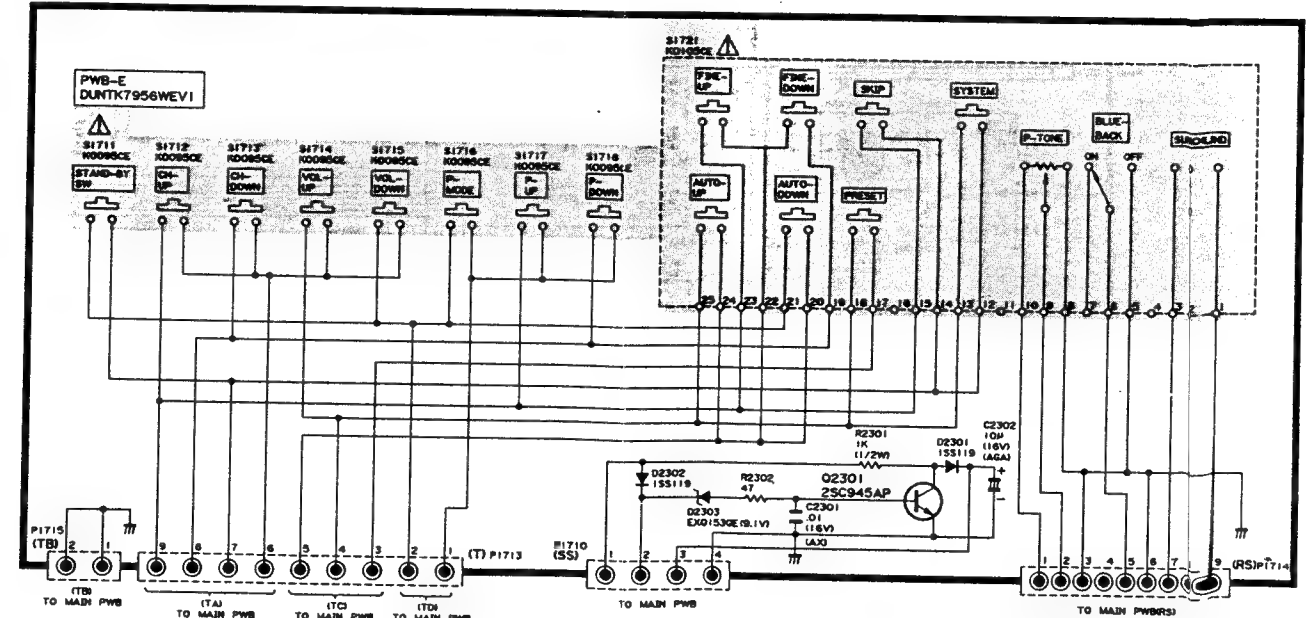
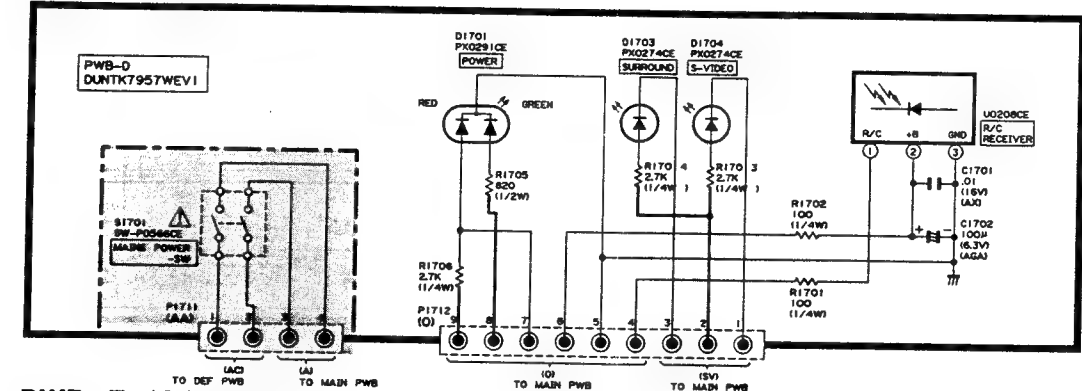
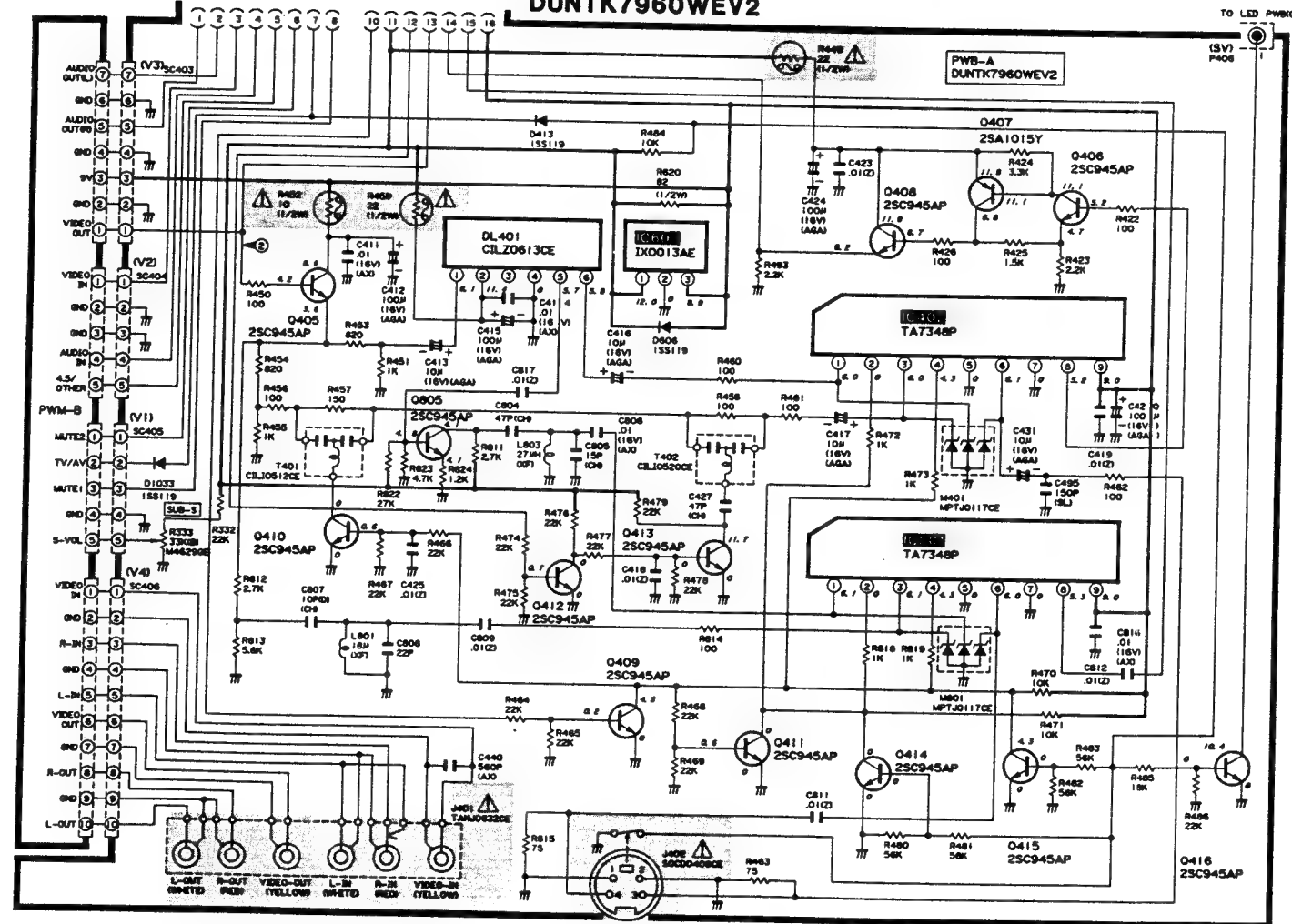
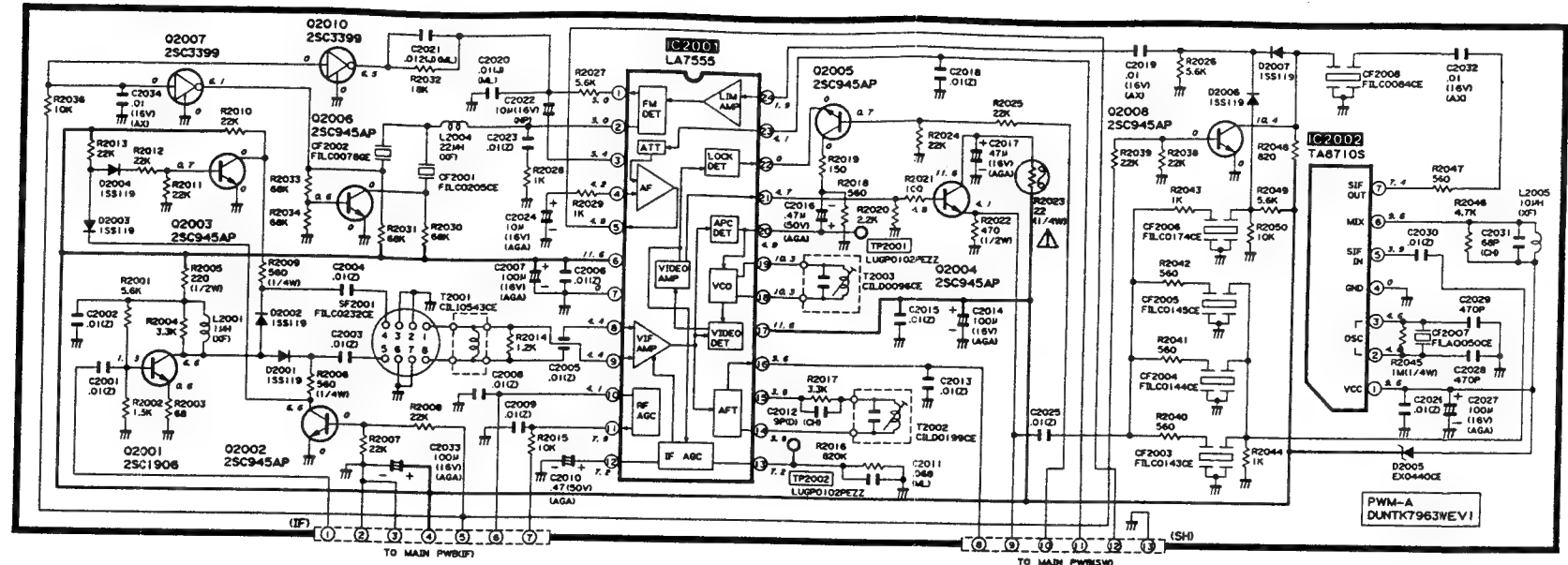
1. The colour bar signal applied to the TP201 is 2.0V peak-to-peak.
2. The tuner AGC voltage is approximately 4V.

All resistors are 1/8W, unless otherwise noted.

## WAVE FORMS

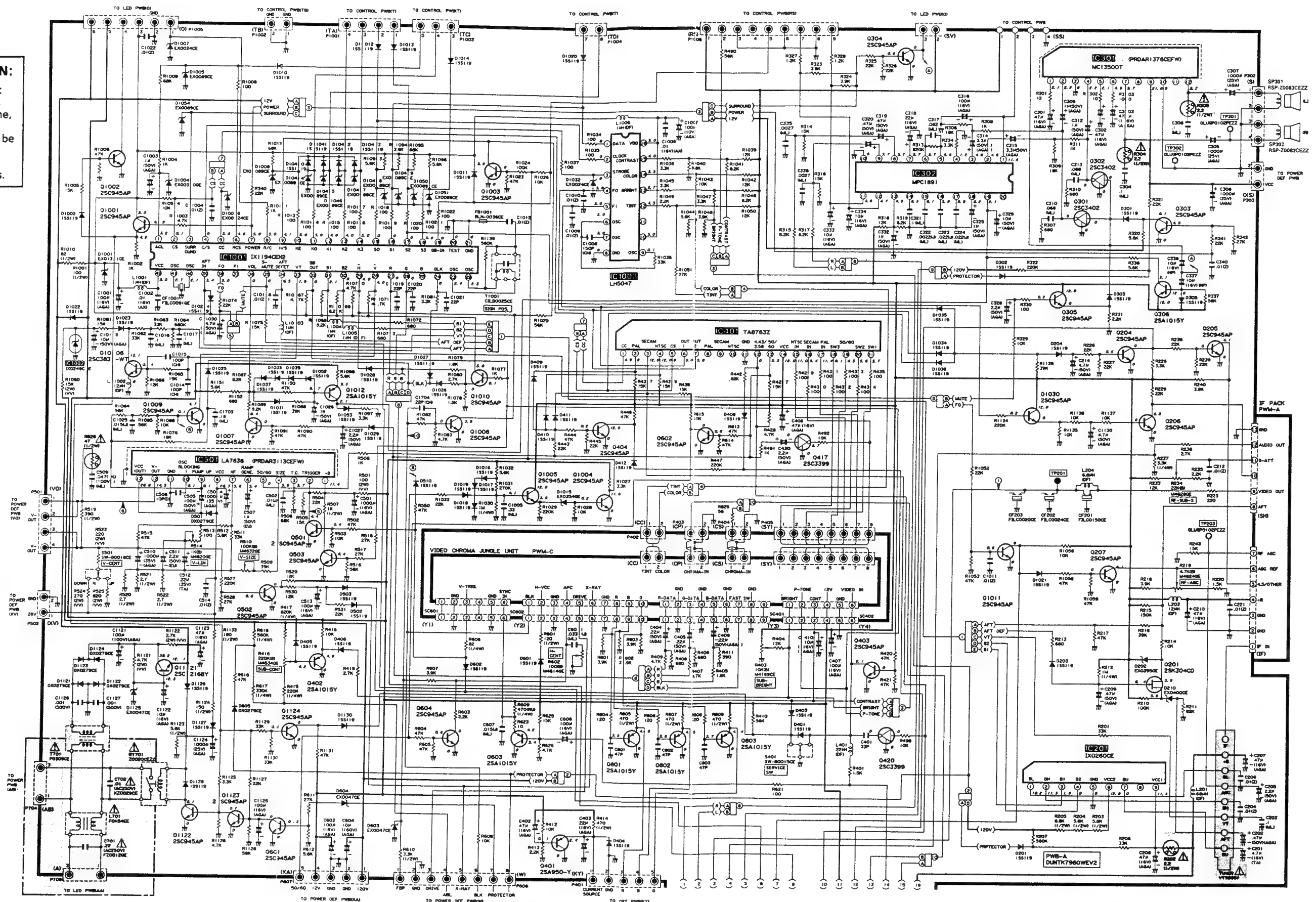


This circuit diagram is original one, therefore there may be a slight difference from yours.



## SCHEMATIC DIAGRAM: Main Unit-1

**CAUTION:**  
This circuit diagram is original one, therefore there may be a slight difference from yours.



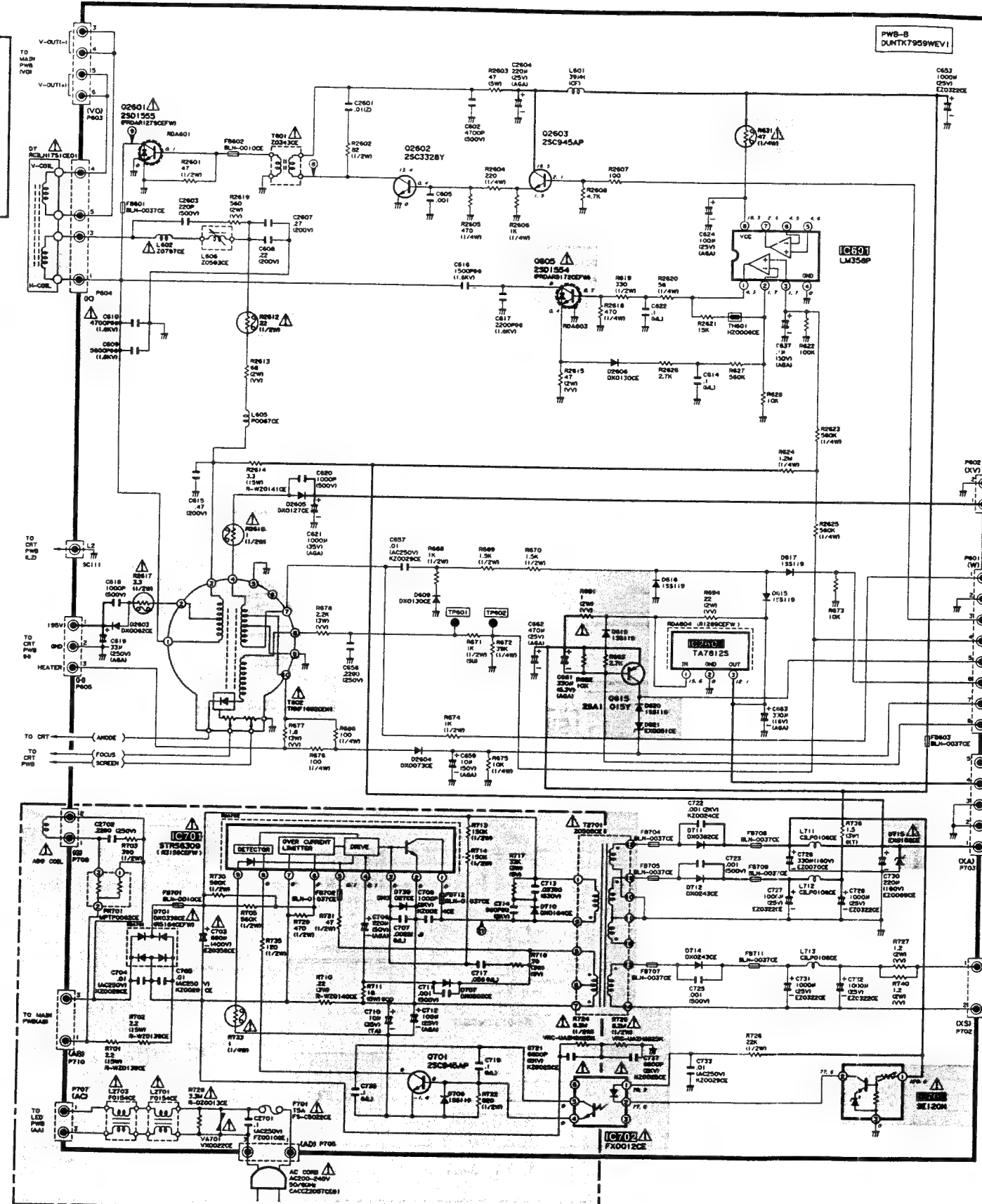


**SCHEMATIC DIAGRAM: Sub Unit**

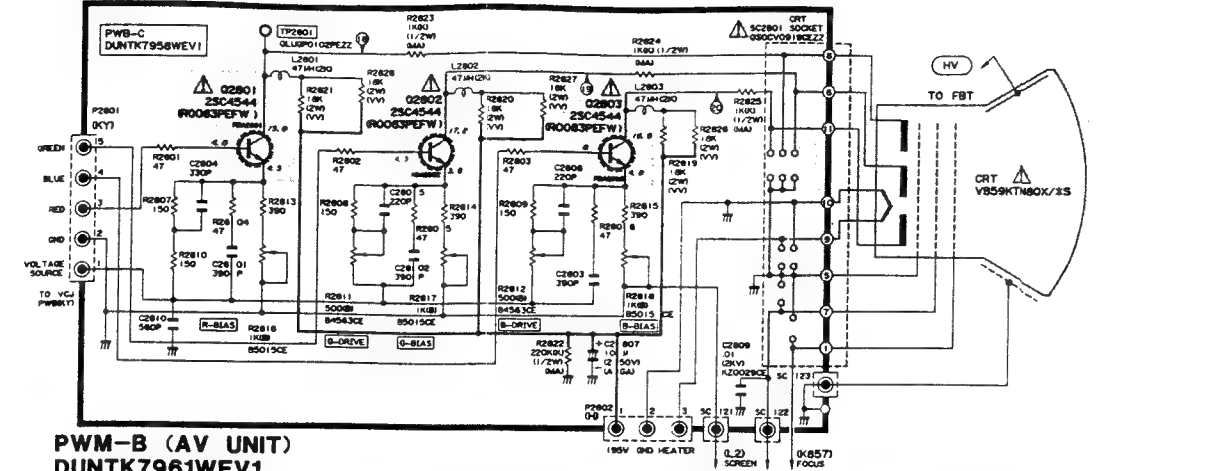
**PWB-B (POWER UNIT)**  
**DUNTK7959WEV1**

**CAUTION:**

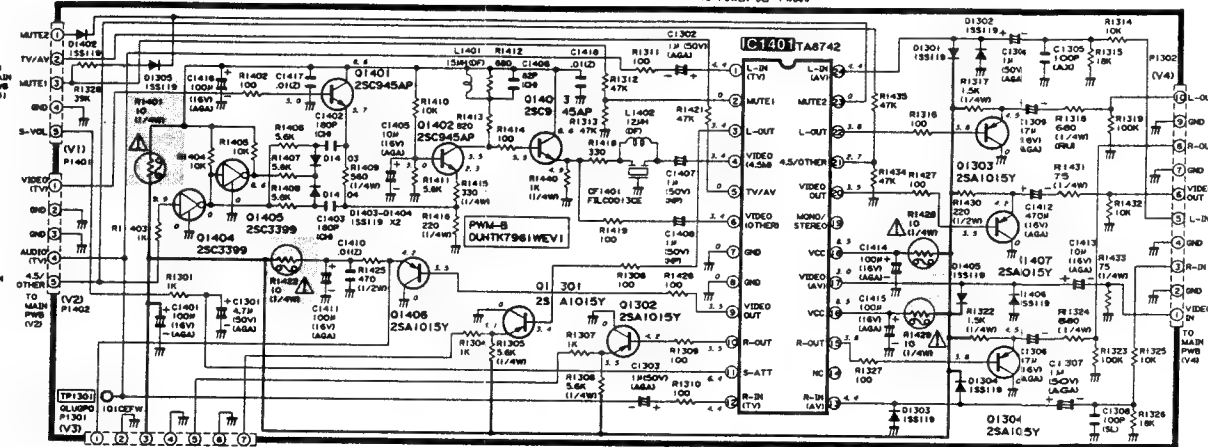
This circuit diagram is original one, therefore there may be a slight difference from yours.



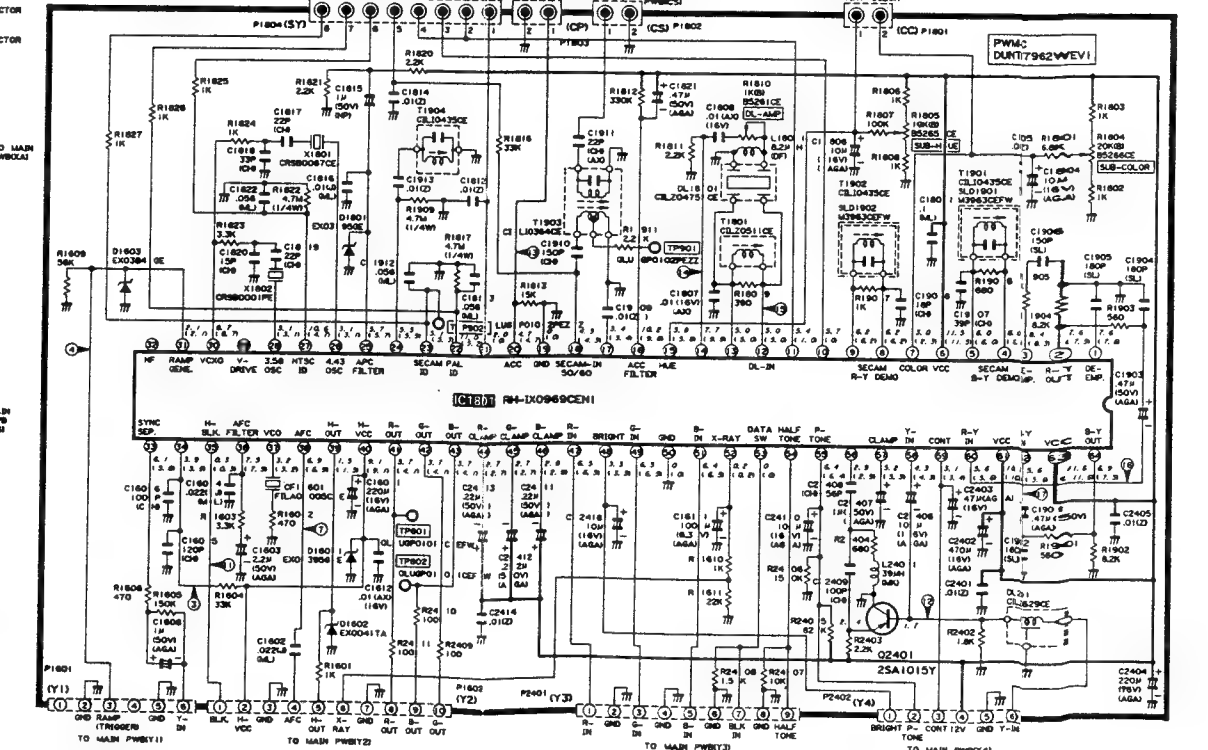
**PWB-C (CRT UNIT)**  
**DUNTK7958WEV1**



**PWM-B (AV UNIT)**  
**DUNTK7961WEV1**



**PWM-C (VIDEO CHROMA JUNGLE UNIT)**  
**DUNTK7962WEV1**



25AN1(B)

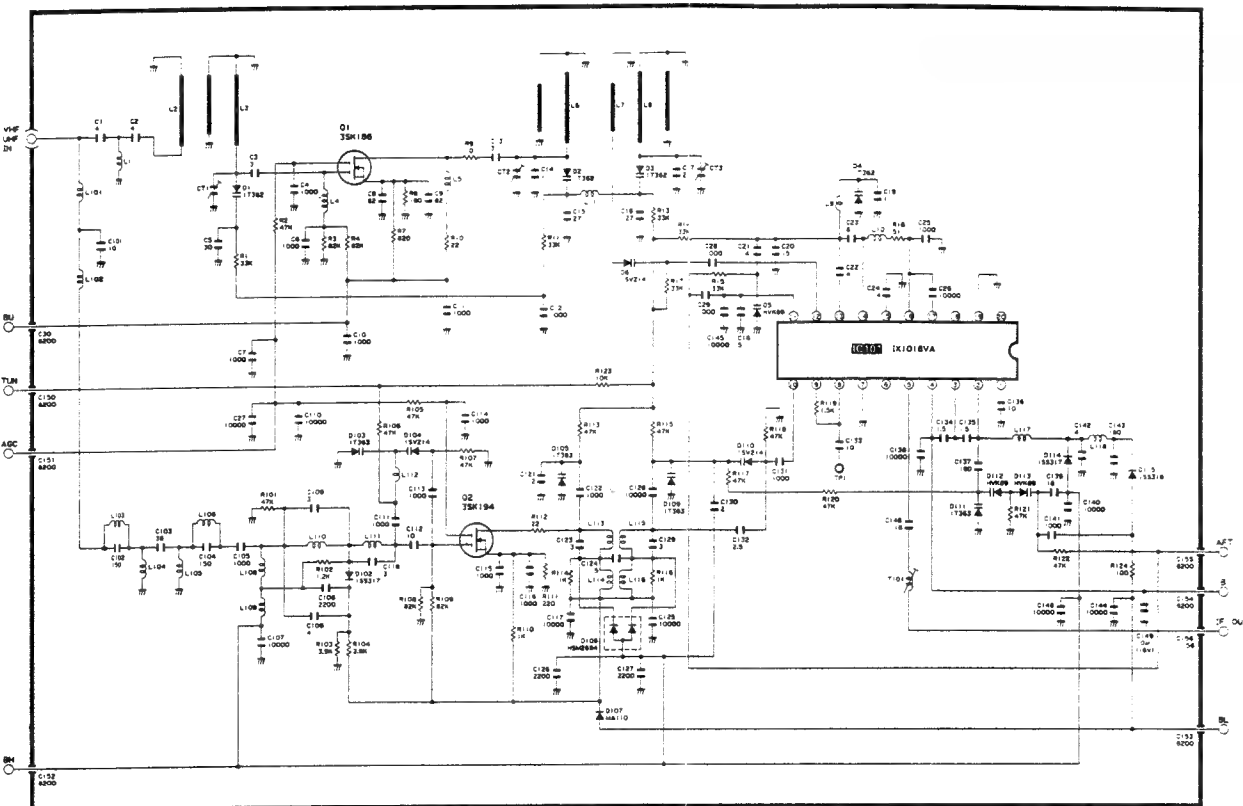
25AN1(B)

VTUVTSS6S1///

## SOLID STATE DEVICE BASE DIAGRAMS

## Tuner

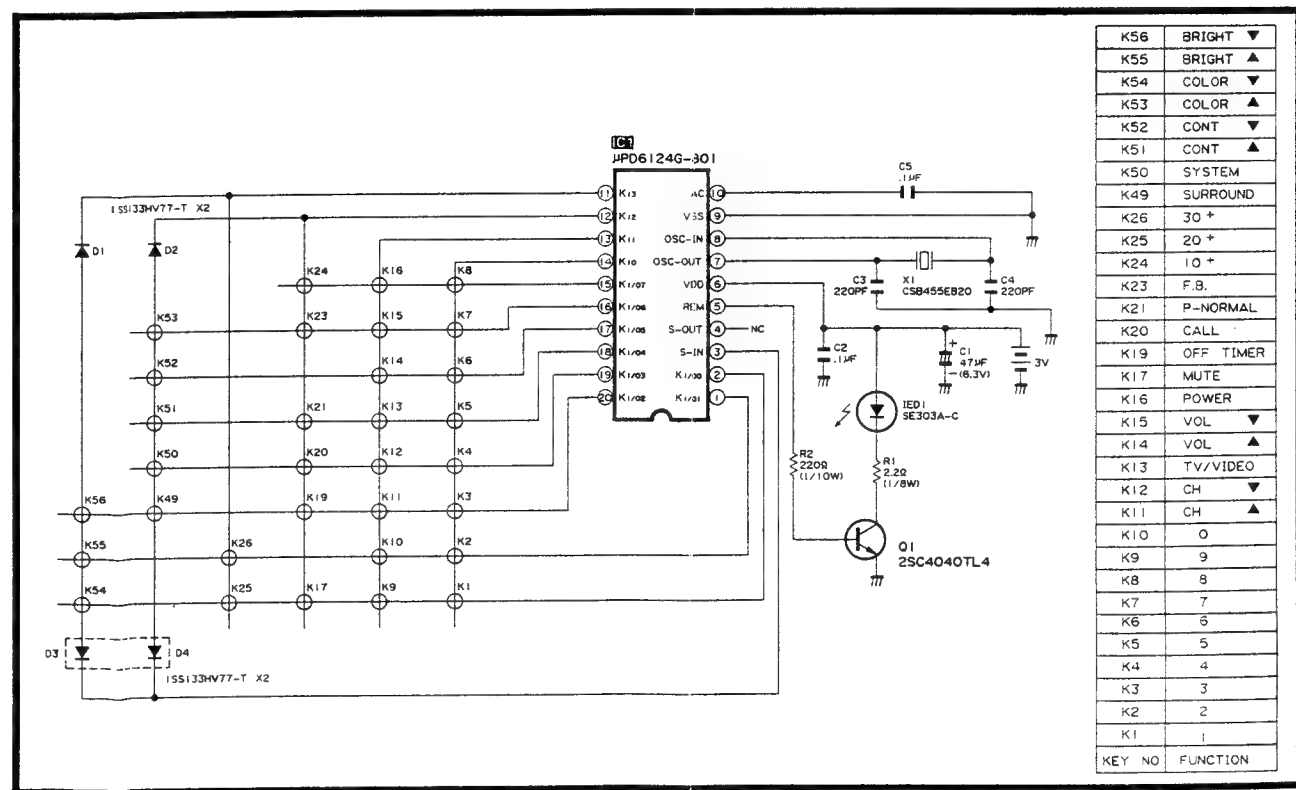
NOTE: The parts here shown are supplied as an assembly but not independently.



## Infrared Remote Control Unit

NOTE: The parts here shown are supplied as an assembly but not independently.

RRMCG0933PESA



VS2SD1910/2E

RH-IX0013AEZZ

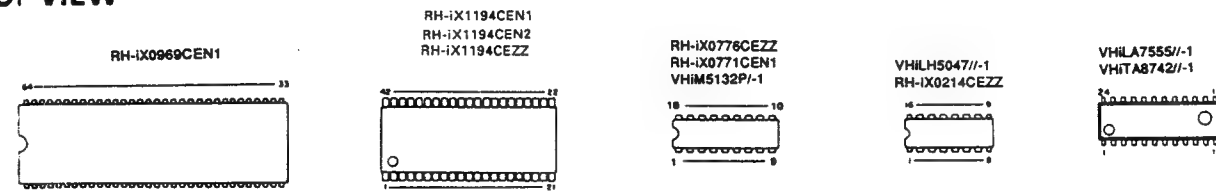
VS2SC2068LB1E

VS2SC2655Y/-1  
VS2SC2236Y/-1  
VS2SC3328Y/-1VS2SC4544LB1E  
VS2SC1827//2E  
VS2SC2168Y/1E  
VS2SC1514/1E

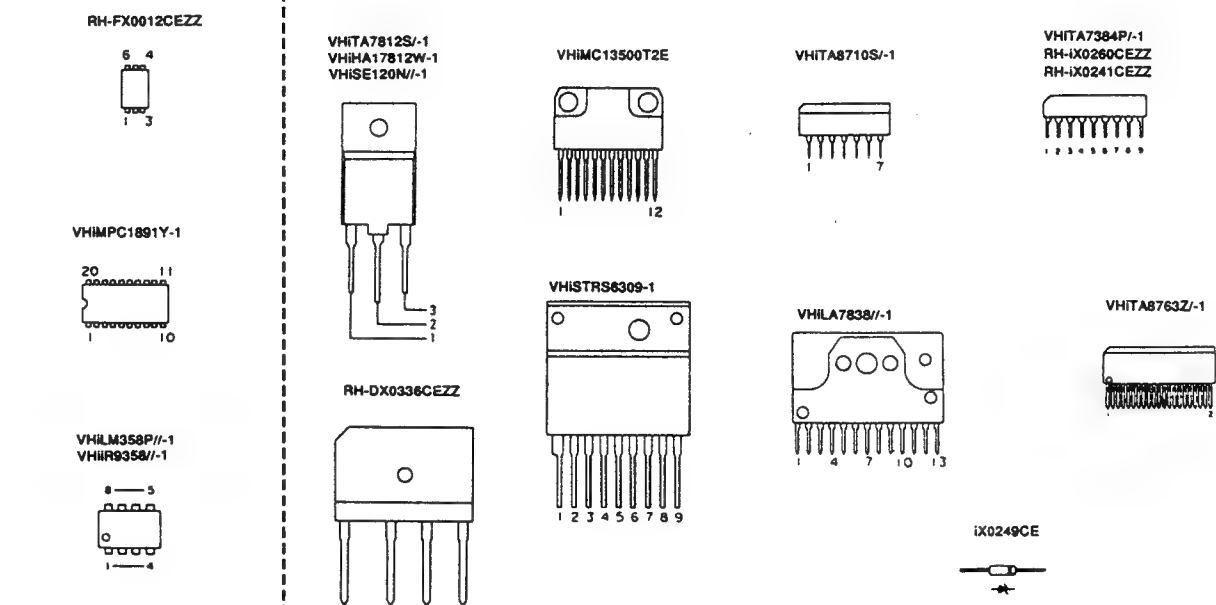
VS2SK304CD/-1

VS2SA1266-Y-1  
VS2SC3198-G-1  
VS2SC1815GW-1  
VS2SC383-WT-1  
VS2SA1015Y/1E  
VS2SA1015GW-1  
VS2SC3399/-1  
VS2SC3402/-1  
VS2SC945AP/-1VS2SC3886A/1E  
VS2SD1554//1E  
VS2SD1555//1E

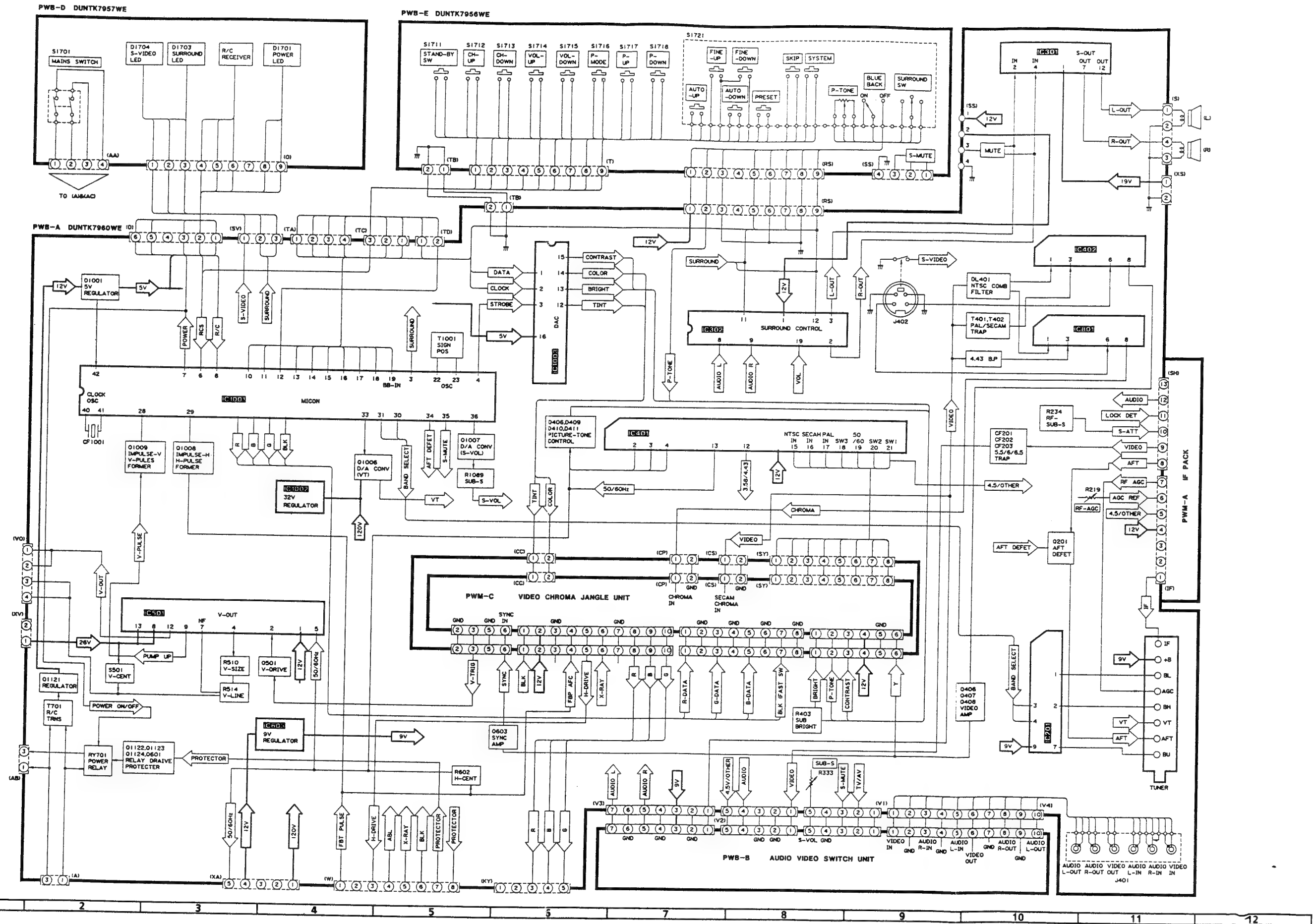
## TOP VIEW



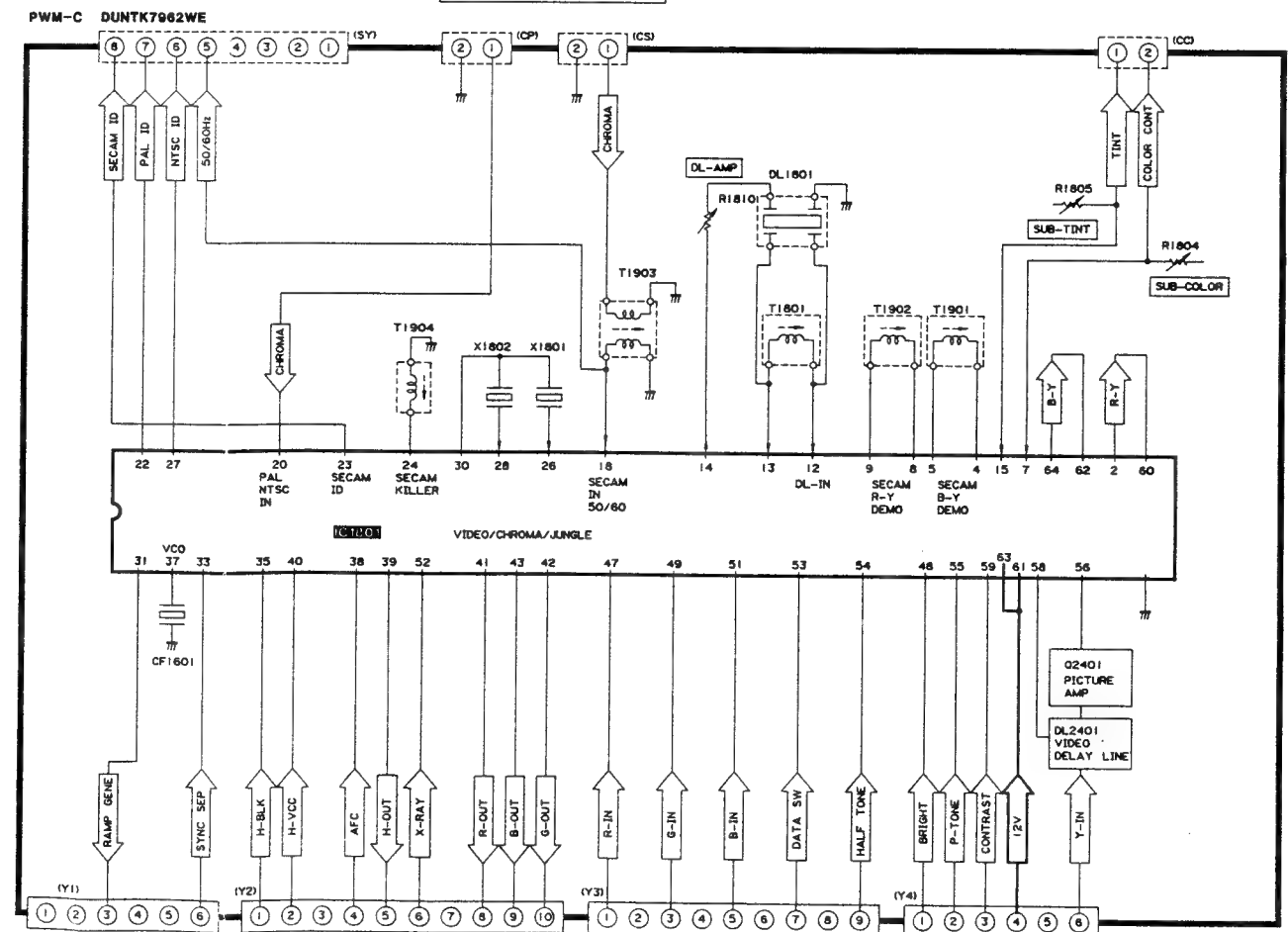
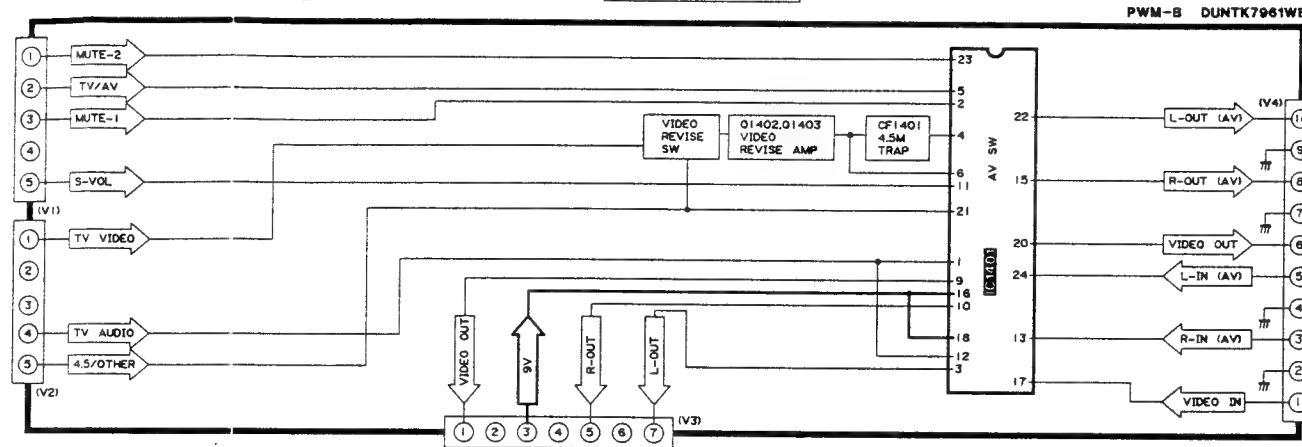
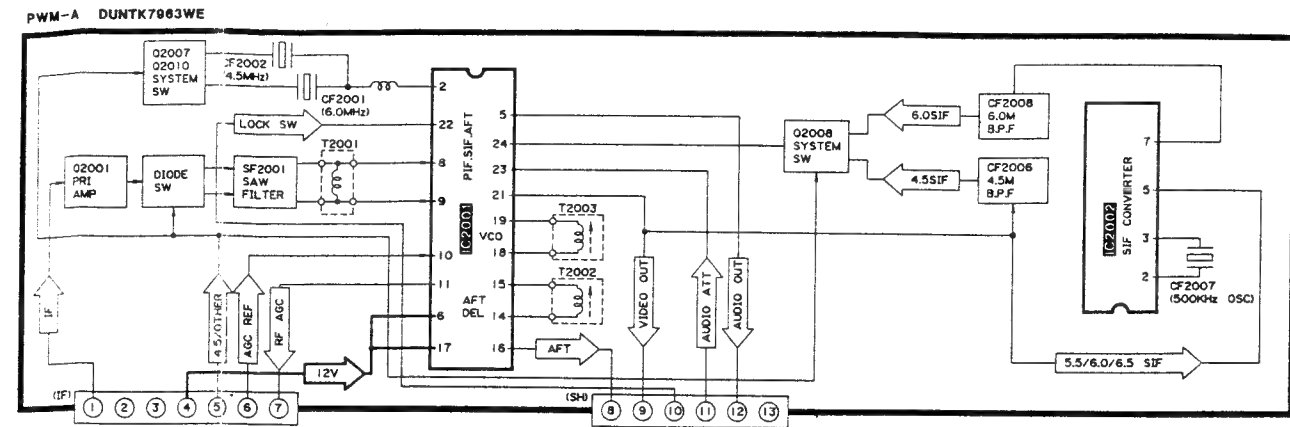
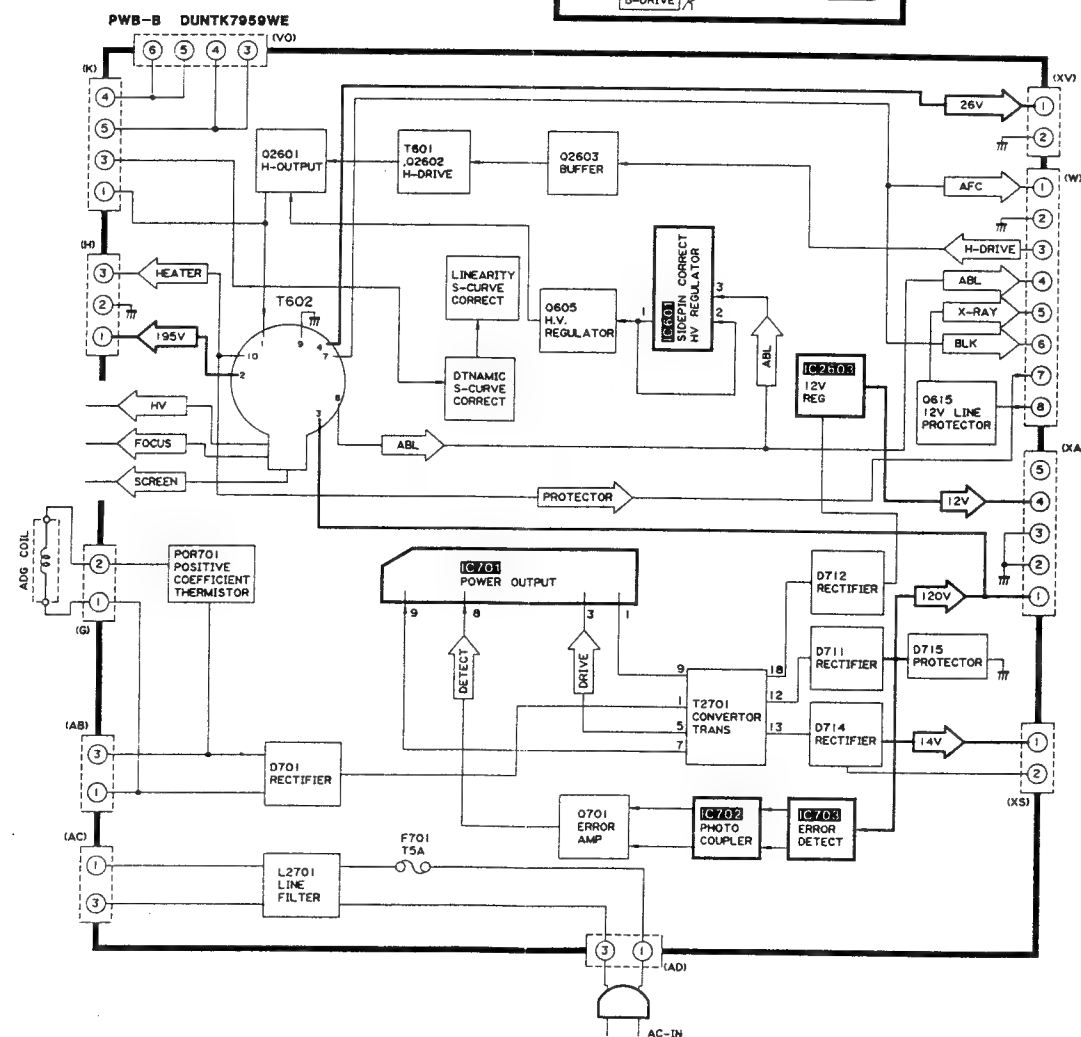
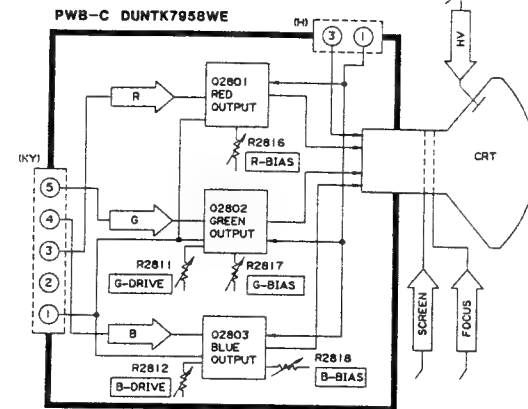
## SIDE VIEW



### BLOCK DIAGRAM : Main Unit



## BLOCK DIAGRAM : Sub Unit





# PARTS LIST

## PARTS REPLACEMENT

Replacement parts which have these special safety characteristics identified in this manual: electrical components having such features are identified by "△" in the Replacement Parts Lists.

The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

### "HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

- |                 |                |
|-----------------|----------------|
| 1. MODEL NUMBER | 2. REF. NO.    |
| 3. PART NO.     | 4. DESCRIPTION |

MARK ★: SPARE PARTS-DELIVERY SECTION.

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

## PICTURE TUBE

|       |               |   |                       |    |
|-------|---------------|---|-----------------------|----|
| △ VB1 | VB59KTN80X/*S | J | CRT (25")             | CR |
| △ DY  | RCILH1751CE01 | R | Deflection Yoke       | BE |
| △     | RCILG0375CEZZ | J | Degaussing (ADG) Coil | AY |
|       | LHLDC3011CEZZ | J | ADG Coil Holder,      | AC |
|       |               |   | × 4 used              |    |

— End of PICTURE TUBE —

## PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)

|       |               |   |                       |   |
|-------|---------------|---|-----------------------|---|
| PWB-A | DUNTK7960WEV2 | — | Mother Unit           | — |
| PWB-B | DUNTK7959WEV1 | — | Deflection/Power Unit | — |
| PWB-C | DUNTK7958WEV1 | — | CRT Socket Unit       | — |
| PWB-D | DUNTK7957WEV1 | — | LED Unit              | — |
| PWB-E | DUNTK7956WEV1 | — | Control Unit          | — |
| PWM-A | DUNTK7963WEV1 | — | IF Unit               | — |
| PWM-B | DUNTK7961WEV1 | — | AV Unit               | — |
| PWM-C | DUNTK7962WEV1 | — | VCI Unit              | — |

— End of PWB ASSEMBLIES —

|          |          |   |             |      |
|----------|----------|---|-------------|------|
| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|

## PWB-A DUNTK7960WEV2 MOTHER UNIT

### TUNER

**NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.**

|   |               |   |                |    |
|---|---------------|---|----------------|----|
| △ | VTUVTSS6S1/// | J | Tuner, VHF/UHF | BB |
|---|---------------|---|----------------|----|

### INTEGRATED CIRCUITS

|        |               |   |           |    |
|--------|---------------|---|-----------|----|
| IC201  | RH-IX0260CEZZ | J | LA7910    | AF |
| IC301  | VHIMC13500T2E | J | MC13500T2 | AN |
| IC302  | VHIMPC1891Y-1 | J | C1891ACY  | AP |
| IC401  | VHITA8763Z/-1 | J | TA8763Z   | AM |
| IC402  | VHITA7348P/-1 | J | TA7348P   | AK |
| IC501  | VHILA7838//-1 | J | LA7838    | AK |
| IC603  | RH-IX0013AEZZ | J | TA78009AP | AK |
| IC801  | VHITA7348P/-1 | J | TA7348P   | AK |
| IC1001 | RH-IX1194CEN2 | J | LR37906Y  | AW |
| IC1002 | RH-IX0249CEZZ | J | HZT33     | AE |
| IC1003 | VHILH5047//-1 | J | LH5047    | AM |

### TRANSISTORS

|      |               |   |             |    |
|------|---------------|---|-------------|----|
| Q201 | VS2SK304CD/-1 | J | 2SK304 (CD) | AC |
| Q204 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q205 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q206 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q207 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q301 | VS2SC3402//-1 | J | 2SC3402     | AB |
| Q302 | VS2SC3402//-1 | J | 2SC3402     | AB |
| Q303 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q304 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q305 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q306 | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q401 | VS2SA950-Y/1E | J | 2SA950(Y)   | AD |
| Q402 | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q403 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q404 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q405 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q406 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q407 | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q408 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q409 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q410 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q411 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q412 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q413 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q414 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q415 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q416 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q417 | VS2SC3399//-1 | J | 2SC3399     | AB |
| Q420 | VS2SC3399//-1 | J | 2SC3399     | AB |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

**PWB-A DUNTK7960WEV2**  
**MOTHER UNIT (Continued)**

**TRANSISTORS (Continued)**

|       |               |   |             |    |
|-------|---------------|---|-------------|----|
| Q501  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q502  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q503  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q601  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q602  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q603  | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q604  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q801  | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q802  | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q803  | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q805  | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1001 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1002 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1003 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1004 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1005 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1006 | VS2SC383-WT-1 | J | 2SC383 (WT) | AE |
| Q1007 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1008 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1009 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1010 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1011 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1012 | VS2SA1015Y/1E | J | 2SA1015(Y)  | AC |
| Q1030 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1121 | VS2SC2168Y/1E | J | 2SC2168 (Y) | AG |
| Q1122 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1123 | VS2SC945AP/-1 | J | 2SC945AP    | AB |
| Q1124 | VS2SC945AP/-1 | J | 2SC945AP    | AB |

**DIODES**

|      |               |   |             |    |
|------|---------------|---|-------------|----|
| D201 | VHD1SS119//1E | J | 1SS119      | AA |
| D202 | RH-EX0395GEZZ | J | Zener Diode | AA |
| D203 | VHD1SS119//1E | J | 1SS119      | AA |
| D204 | VHD1SS119//1E | J | 1SS119      | AA |
| D210 | RH-EX0400CEZZ | J | Zener Diode | AC |
| D301 | VHD1SS119//1E | J | 1SS119      | AA |
| D302 | VHD1SS119//1E | J | 1SS119      | AA |
| D303 | VHD1SS119//1E | J | 1SS119      | AA |
| D305 | VHD1SS119//1E | J | 1SS119      | AA |
| D401 | VHD1SS119//1E | J | 1SS119      | AA |
| D403 | VHD1SS119//1E | J | 1SS119      | AA |
| D404 | VHD1SS119//1E | J | 1SS119      | AA |
| D405 | VHD1SS119//1E | J | 1SS119      | AA |
| D406 | VHD1SS119//1E | J | 1SS119      | AA |
| D408 | VHD1SS119//1E | J | 1SS119      | AA |
| D409 | VHD1SS119//1E | J | 1SS119      | AA |
| D410 | VHD1SS119//1E | J | 1SS119      | AA |
| D411 | VHD1SS119//1E | J | 1SS119      | AA |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

**DIODES (Continued)**

|       |               |   |             |    |
|-------|---------------|---|-------------|----|
| D412  | VHD1SS119//1E | J | 1SS119      | AA |
| D413  | VHD1SS119//1E | J | 1SS119      | AA |
| D501  | RH-DX0279CEZZ | J |             | AB |
| D502  | VHD1SS119//1E | J | 1SS119      | AA |
| D503  | VHD1SS119//1E | J | 1SS119      | AA |
| D510  | VHD1SS119//1E | J | 1SS119      | AA |
| D601  | VHD1SS119//1E | J | 1SS119      | AA |
| D602  | VHD1SS119//1E | J | 1SS119      | AA |
| D603  | RH-EX0047CEZZ | J | Zener Diode | AB |
| D604  | RH-EX0047CEZZ | J | Zener Diode | AB |
| D605  | RH-DX0279CEZZ | J |             | AB |
| D606  | VHD1SS119//1E | J | 1SS119      | AA |
| D1001 | RH-EX0131CEZZ | J | Zener Diode | AB |
| D1002 | VHD1SS119//1E | J | 1SS119      | AA |
| D1004 | RH-EX0030GEZZ | J | Zener Diode | AB |
| D1005 | RH-EX0089CEZZ | J | Zener Diode | AB |
| D1006 | RH-EX0024CEZZ | J | Zener Diode | AB |
| D1007 | RH-EX0024CEZZ | J | Zener Diode | AB |
| D1008 | RH-EX0089CEZZ | J | Zener Diode | AB |
| D1010 | VHD1SS119//1E | J | 1SS119      | AA |
| D1011 | VHD1SS119//1E | J | 1SS119      | AA |
| D1012 | VHD1SS119//1E | J | 1SS119      | AA |
| D1013 | VHD1SS119//1E | J | 1SS119      | AA |
| D1014 | VHD1SS119//1E | J | 1SS119      | AA |
| D1015 | RH-EX0354GEZZ | J | Zener Diode | AA |
| D1016 | VHD1SS119//1E | J | 1SS119      | AA |
| D1017 | VHD1SS119//1E | J | 1SS119      | AA |
| D1018 | VHD1SS119//1E | J | 1SS119      | AA |
| D1019 | VHD1SS119//1E | J | 1SS119      | AA |
| D1020 | VHD1SS119//1E | J | 1SS119      | AA |
| D1021 | VHD1SS119//1E | J | 1SS119      | AA |
| D1022 | VHD1SS119//1E | J | 1SS119      | AA |
| D1023 | VHD1SS119//1E | J | 1SS119      | AA |
| D1024 | VHD1SS119//1E | J | 1SS119      | AA |
| D1025 | VHD1SS119//1E | J | 1SS119      | AA |
| D1026 | VHD1SS119//1E | J | 1SS119      | AA |
| D1027 | VHD1SS119//1E | J | 1SS119      | AA |
| D1028 | VHD1SS119//1E | J | 1SS119      | AA |
| D1029 | VHD1SS119//1E | J | 1SS119      | AA |
| D1031 | VHD1SS119//1E | J | 1SS119      | AA |
| D1032 | RH-EX0024CEZZ | J | Zener Diode | AB |
| D1033 | VHD1SS119//1E | J | 1SS119      | AA |
| D1034 | VHD1SS119//1E | J | 1SS119      | AA |
| D1035 | VHD1SS119//1E | J | 1SS119      | AA |
| D1036 | VHD1SS119//1E | J | 1SS119      | AA |
| D1037 | VHD1SS119//1E | J | 1SS119      | AA |
| D1038 | VHD1SS119//1E | J | 1SS119      | AA |
| D1039 | VHD1SS119//1E | J | 1SS119      | AA |
| D1040 | VHD1SS119//1E | J | 1SS119      | AA |
| D1041 | VHD1SS119//1E | J | 1SS119      | AA |
| D1042 | VHD1SS119//1E | J | 1SS119      | AA |
| D1043 | VHD1SS119//1E | J | 1SS119      | AA |
| D1044 | RH-EX0089CEZZ | J | Zener Diode | AB |
| D1045 | RH-EX0089CEZZ | J | Zener Diode | AB |

| Ref. No.   | Part No.      | ★ | Description                               | Code | Ref. No.                                  | Part No.      | ★ | Description             | Code |
|--|---------------|---|---|------|---|---------------|---|-------------------------|------|
| <b>PWB-A DUNTK7960WEV2<br/>MOTHER UNIT (Continued)</b> |               |   |   |      | <b>COILS AND TRANSFORMERS (Continued)</b> |               |   |                         |      |
| <b>DIODES (Continued)</b>                              |               |   |   |      | T402                                      | RCiLi0520CEZZ | J | Coil, 3.58 MHz Trap     | AE   |
| D1046  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | △ T701                                    | RTRNP0309CEZZ | J | R/C Back-Up Trans.      | AS   |
| D1047  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | T1001                                     | RCiLB0025CEZZ | R | Coil, O.S.D. Oscillator | AD   |
| D1048  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | <b>CONTROLS</b>                           |               |   |                         |      |
| D1049  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | R219                                      | RVR-M4624GEZZ | J | 4.7k(B) RF-AGC          | AB   |
| D1050  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | R234                                      | RVR-M4628GEZZ | J | 22k(B) RF-Sub-Sound     | AB   |
| D1051  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | R333                                      | RVR-M4629GEZZ | J | 33k(B) Sub-Sound        | AB   |
| D1052  | VHD1SS119//1E | J | 1SS119                                    | AA   | R403                                      | RVR-M4189CEZZ | J | 10k(B) Sub-Brightness   | AC   |
| D1053  | VHD1SS119//1E | J | 1SS119                                    | AA   | R416                                      | RVR-M4634GEZZ | J | 220k(B) Sub-Contrast    | AC   |
| D1054  | RH-EX0089CEZZ | J | Zener Diode                               | AB   | R510                                      | RVR-M4632GEZZ | J | 100k(B) Vertical Size   | AB   |
| D1121  | RH-DX0279CEZZ | J |   | AB   | R514                                      | RVR-M4620GEZZ | J | 1k(B) Vertical Line     | AB   |
| D1122  | RH-DX0279CEZZ | J |   | AB   | R602                                      | RVR-M4614GEZZ | J | 100(B) Horiz. -Center   | AB   |
| D1123  | RH-DX0279CEZZ | J |   | AB   | <b>CAPACITORS</b>                         |               |   |                         |      |
| D1124  | RH-DX0279CEZZ | J |   | AB   | C201                                      | VCSATA1CE475K | J | 4.7 16V Tantalum        | AC   |
| D1125  | RH-EX0047CEZZ | J | Zener Diode                               | AB   | C202                                      | VCEAGA1HW474M | J | 0.47 50V Electrolytic   | AA   |
| D1126  | VHD1SS119//1E | J | 1SS119                                    | AA   | C203                                      | VCFYHA1HA104J | J | 0.1 50V M. Polyester    | AB   |
| D1127  | VHD1SS119//1E | J | 1SS119                                    | AA   | C204                                      | VCKYPA1HF103Z | J | 0.01 50V Ceramic        | AA   |
| D1128  | VHD1SS119//1E | J | 1SS119                                    | AA   | C205                                      | VCEAGA1HW225M | J | 2.2 50V Electrolytic    | AB   |
| D1130  | VHD1SS119//1E | J | 1SS119                                    | AA   | C206                                      | VCKYPA1HF103Z | J | 0.01 50V Ceramic        | AA   |
| <b>PACKAGED CIRCUITS</b>                               |               |   |   |      | C207                                      | VCEAGA1CW476M | J | 47 16V Electrolytic     | AB   |
| M401   | RMPTJ0117CEZZ | J | Diode Array                               | AD   | C208                                      | VCEAGA1CW476M | J | 47 16V Electrolytic     | AB   |
| M801   | RMPTJ0117CEZZ | J | Diode Array                               | AD   | C209                                      | VCEAGA1HW474M | J | 0.47 50V Electrolytic   | AA   |
| <b>COILS AND TRANSFORMERS</b>                          |               |   |   |      | C210                                      | VCEAGA1CW476M | J | 47 16V Electrolytic     | AB   |
| CF201  | RFiLC0150CEZZ | J | Ceramic Filter,<br>5.5 MHz / 6.0 MHz Trap | AF   | C212                                      | VCKYPA1HF103Z | J | 0.01 50V Ceramic        | AA   |
| CF202  | RFiLC0024CEZZ | J | Ceramic Filter,<br>6.5 MHz Trap           | AE   | C214                                      | VCEAGA1HW475M | J | 4.7 50V Electrolytic    | AB   |
| CF203  | RFiLC0020CEZZ | J | Ceramic Filter,<br>5.5 MHz Trap           | AE   | C221                                      | VCKYPA1HF103Z | J | 0.01 50V Ceramic        | AA   |
| CF1001   | RFiLC0091GEZZ | J | Ceramic Filter,<br>4 MHz Osc.             | AD   | C301                                      | VCEAGA1CW476M | J | 47 16V Electrolytic     | AB   |
| DL401  | RFiLZ0613CEZZ | J | Comb. Filter                              | AT   | C302                                      | VCEAGA1CW476M | J | 47 16V Electrolytic     | AB   |
| L201   | VP-DF680K0000 | J | Coil, 68 $\mu$ H                          | AB   | C303                                      | VCEAGA1CW476M | J | 47 16V Electrolytic     | AB   |
| L203   | VP-DF120K0000 | J | Coil, 12 $\mu$ H                          | AB   | C304                                      | VCFYHA1HA104J | J | 0.1 50V M. Polyester    | AB   |
| L204   | VP-DF6R8K0000 | J | Coil, 6.8 $\mu$ H                         | AB   | C305                                      | VCEAGA1EW108M | J | 1000 25V Electrolytic   | AD   |
| L401   | VP-DF220K0000 | J | Coil, 22 $\mu$ H                          | AB   | C306                                      | VCFYHA1HA104J | J | 0.1 50V M. Polyester    | AB   |
| △ L701   | RCiLF0154CEZZ | J | Coil, Line Filter                         | AQ   | C307                                      | VCEAGA1EW108M | J | 1000 25V Electrolytic   | AD   |
| L801   | VP-XF180K0000 | J | Coil, 18 $\mu$ H                          | AB   | C308                                      | VCEAGA1VW108M | J | 1000 35V Electrolytic   | AD   |
| L803   | VP-XF270K0000 | J | Coil, 27 $\mu$ H                          | AB   | C309                                      | VCEAGA1HW105M | J | 1 50V Electrolytic      | AC   |
| L1001  | VP-DF1R0K0000 | J | Coil, 1 $\mu$ H                           | AB   | C310                                      | VCFYHA1HA683J | J | 0.068 50V M. Polyester  | AC   |
| L1002  | VP-DF120K0000 | J | Coil, 12 $\mu$ H                          | AB   | C312                                      | VCEAGA1HW105M | J | 1 50V Electrolytic      | AC   |
| L1003  | VP-DF1R0K0000 | J | Coil, 1 $\mu$ H                           | AB   | C313                                      | VCFYHA1HA683J | J | 0.068 50V M. Polyester  | AC   |
| L1004  | VP-DF1R0K0000 | J | Coil, 1 $\mu$ H                           | AB   | C314                                      | VCEAGA1HW335M | J | 3.3 50V Electrolytic    | AB   |
| L1005  | VP-DF1R0K0000 | J | Coil, 1 $\mu$ H                           | AB   | C315                                      | VCEAGA1HW335M | J | 3.3 50V Electrolytic    | AB   |
| L1006  | VP-DF1R0K0000 | J | Coil, 1 $\mu$ H                           | AB   | C316                                      | VCEAGA1CW107M | J | 100 16V Electrolytic    | AB   |
| T401   | RCiLi0512CEZZ | J | Coil, 4.43 MHz Trap                       | AE   | C317                                      | VCFYHA1HA823J | J | 0.082 50V M. Polyester  | AA   |
|  |               |   |   |      | C318                                      | VCEAGA1CW226M | J | 22 16V Electrolytic     | AB   |
|  |               |   |   |      | C319                                      | VCEAGA1HW474M | J | 0.47 50V Electrolytic   | AA   |
|  |               |   |   |      | C320                                      | VCEAGA1HW474M | J | 0.47 50V Electrolytic   | AA   |
|  |               |   |   |      | C321                                      | VCFYHA1HA104J | J | 0.1 50V M. Polyester    | AB   |
|  |               |   |   |      | C322                                      | VCQYTA1HM222J | J | 2200p50V Mylar          | AA   |
|  |               |   |   |      | C323                                      | VCQYTA1HM223J | J | 0.022 50V Mylar         | AA   |

| Ref. No. | Part No. | * | Description | Code |
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# PWB-A DUNTK7960WEV2 MOTHER UNIT (Continued)

## CAPACITORS (Continued)

|      |               |   |                       |    |
|------|---------------|---|-----------------------|----|
| C324 | VCQYTA1HM223J | J | 0.022 50V Mylar       | AA |
| C325 | VCEAGA1HW105M | J | 1 50V Electrolytic    | AC |
| C328 | VCEAGA1HW225M | J | 2.2 50V Electrolytic  | AB |
| C329 | VCEAGA1HW106M | J | 10 50V Electrolytic   | AC |
| C332 | VCEAGA1HW105M | J | 1 50V Electrolytic    | AC |
| C333 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C334 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C335 | VCQYTA1HM272J | J | 2700p50V Mylar        | AA |
| C336 | VCQYTA1HM272J | J | 2700p50V Mylar        | AA |
| C337 | VCE9GA1CW106M | J | 10 16V Elect. (N.P)   | AB |
| C338 | VCE9GA1CW106M | J | 10 16V Elect. (N.P)   | AB |
| C340 | VCKYPA1HF103Z | J | 0.01 50V Ceramic      | AA |
| C401 | VCCSPA1HL330J | J | 33p 50V Ceramic       | AA |
| C402 | VCEAGA1CW476M | J | 47 16V Electrolytic   | AB |
| C403 | VCEAGA1CW226M | J | 22 16V Electrolytic   | AB |
| C404 | VCEAGA1HW224M | J | 0.22 50V Electrolytic | AB |
| C405 | VCEAGA1HW224M | J | 0.22 50V Electrolytic | AB |
| C406 | VCEAGA1HW224M | J | 0.22 50V Electrolytic | AB |
| C407 | VCEAGA1CW107M | J | 100 16V Electrolytic  | AB |
| C408 | VCEAGA1CW476M | J | 47 16V Electrolytic   | AB |
| C410 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C411 | VCKYD41CY103N | J | 0.01 16V Ceramic      | AA |
| C412 | VCEAGA1CW107M | J | 100 16V Electrolytic  | AB |
| C413 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C414 | VCKYD41CY103N | J | 0.01 16V Ceramic      | AA |
| C415 | VCEAGA1CW107M | J | 100 16V Electrolytic  | AB |
| C416 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C417 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C418 | VCKYPA1HF103Z | J | 0.01 50V Ceramic      | AA |
| C419 | VCKYPA1HF103Z | J | 0.01 50V Ceramic      | AA |
| C420 | VCEAGA1CW107M | J | 100 16V Electrolytic  | AB |
| C423 | VCKYPA1HF103Z | J | 0.01 50V Ceramic      | AA |
| C424 | VCEAGA1CW107M | J | 100 16V Electrolytic  | AB |
| C425 | VCKYPA1HF103Z | J | 0.01 50V Ceramic      | AA |
| C427 | VCCCPA1HH470J | J | 47p 50V Ceramic       | AA |
| C430 | VCEAGA1HW225M | J | 2.2 50V Electrolytic  | AB |
| C431 | VCEAGA1CW106M | J | 10 16V Electrolytic   | AA |
| C440 | VCKYD41HB561K | J | 560p 50V Ceramic      | AA |
| C495 | VCCSPA1HL151J | J | 150p 50V Ceramic      | AA |
| C501 | VCEAGA1CW108M | J | 1000 16V Electrolytic | AD |
| C502 | VCQYTA1HM103J | J | 0.01 50V Mylar        | AA |
| C504 | VCEAGA1VW108M | J | 1000 35V Electrolytic | AD |
| C505 | VCEAGA1HW107M | J | 100 50V Electrolytic  | AC |
| C506 | VCCCPA1HH100D | J | 10p 50V Ceramic       | AA |
| C507 | VCEACA1HC105M | J | 1 50V Electrolytic    | AC |
| C509 | VCQYSG2AA473K | J | 0.047 100V Mylar      | AC |
| C510 | VCEAGA1VW108M | J | 1000 35V Electrolytic | AD |
| C511 | VCEACA1HC225M | J | 2.2 50V Electrolytic  | AC |
| C512 | VCSATA1VE224K | J | 0.22 35V Tantalum     | AC |
| C513 | VCEAGA1CW107M | J | 100 16V Electrolytic  | AB |
| C514 | VCKYPA1HF103Z | J | 0.01 50V Ceramic      | AA |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
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## CAPACITORS (Continued)

|       |               |   |                          |    |
|-------|---------------|---|--------------------------|----|
| C601  | VCQYTA1HM333J | J | 0.033 50V Mylar          | AA |
| C603  | VCEAGA1CW107M | J | 100 16V Electrolytic     | AB |
| C604  | VCEAGA2CW106M | J | 10 160V Electrolytic     | AC |
| C606  | VCEAGA1CW107M | J | 100 16V Electrolytic     | AB |
| C607  | VCQYTA1HM153J | J | 0.015 50V Mylar          | AA |
| △C701 | RC-FZ0012GEZZ | J | 0.22 AC250V M. Polyester | AE |
| △C702 | RC-KZ0029CEZZ | J | 0.01 AC250V Ceramic      | AC |
| C801  | VCCSD41HL470J | J | 47p 50V Ceramic          | AA |
| C802  | VCCSD41HL470J | J | 47p 50V Ceramic          | AA |
| C803  | VCCSD41HL470J | J | 47p 50V Ceramic          | AA |
| C804  | VCCCPA1HH470J | J | 47p 50V Ceramic          | AA |
| C805  | VCCCPA1HH150J | J | 15p 50V Ceramic          | AA |
| C806  | VCKYD41CY103N | J | 0.01 16V Ceramic         | AA |
| C807  | VCCCPA1HH100D | J | 10p 50V Ceramic          | AA |
| C808  | VCCSPA1HL220J | J | 22p 50V Ceramic          | AA |
| C809  | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C811  | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C812  | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C816  | VCKYD41CY103N | J | 0.01 16V Ceramic         | AA |
| C817  | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1001 | VCEAGA1CW107M | J | 100 16V Electrolytic     | AB |
| C1002 | VCKYD41CY103N | J | 0.01 16V Ceramic         | AA |
| C1003 | VCEAGA1HW104M | J | 0.1 50V Electrolytic     | AA |
| C1004 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1005 | VCFYHA1HA334J | J | 0.33 50V M. Polyester    | AC |
| C1006 | VCKYD41CY103N | J | 0.01 16V Ceramic         | AA |
| C1007 | VCEAGA1AW107M | J | 100 10V Electrolytic     | AB |
| C1008 | VCCCPA1HH151J | J | 150p 50V Ceramic         | AA |
| C1009 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1010 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1011 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1012 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1013 | VCEAGA1HW106M | J | 10 50V Electrolytic      | AC |
| C1014 | VCCCPA1HH101J | J | 100p 50V Ceramic         | AA |
| C1015 | VCCCPA1HH101J | J | 100p 50V Ceramic         | AA |
| C1016 | VCFYHA1HA104J | J | 0.1 50V M. Polyester     | AB |
| C1017 | VCFYHA1HA104J | J | 0.1 50V M. Polyester     | AB |
| C1018 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1019 | VCCSPA1HL220J | J | 22p 50V Ceramic          | AA |
| C1020 | VCCSPA1HL220J | J | 22p 50V Ceramic          | AA |
| C1021 | VCCSPA1HL220J | J | 22p 50V Ceramic          | AA |
| C1022 | VCKYPA1HF103Z | J | 0.01 50V Ceramic         | AA |
| C1025 | VCQYTA1HM153J | J | 0.015 50V Mylar          | AA |
| C1026 | VCEAGA1HW105M | J | 1 50V Electrolytic       | AC |
| C1027 | VCEAGA1HW225M | J | 2.2 50V Electrolytic     | AB |
| C1030 | VCEAGA1HW475M | J | 4.7 50V Electrolytic     | AB |
| C1121 | VCEAGA2AW107M | J | 100 100V Electrolytic    | AD |
| C1122 | VCEAGA1CW106M | J | 10 16V Electrolytic      | AA |
| C1123 | VCEAGA1CW476M | J | 47 16V Electrolytic      | AB |
| C1124 | VCEAGA1EW108M | J | 1000 25V Electrolytic    | AD |
| C1125 | VCEAGA1CW107M | J | 100 16V Electrolytic     | AB |
| C1126 | VCKYPA2HB102K | J | 1000p 500V Ceramic       | AA |
| C1127 | VCKYPA2HB102K | J | 1000p 500V Ceramic       | AA |
| C1130 | VCEAGA1HW475M | J | 4.7 50V Electrolytic     | AB |

| Ref. No. | Part No. | ★ | Description | Code |
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## PWB-A DUNTK7960WEV2 MOTHER UNIT (Continued)

### CAPACITORS (Continued)

|       |                |   |                       |    |
|-------|----------------|---|-----------------------|----|
| C1703 | VCIFYHA1HA184J | J | 0.18 50V M. Polyester | AC |
| C1704 | VCCCPA1HH220J  | J | 22p 50V Ceramic       | AA |

### RESISTORS

|        |               |   |                        |    |
|--------|---------------|---|------------------------|----|
| R201   | VRD-RA2BE333J | J | 33k 1/8W Carbon        | AA |
| △ R202 | VRG-RL2HB2R2J | J | 2.2 1/2W Fuse Resistor | AB |
| R203   | VRD-RM2HD562J | J | 5.6k 1/2W Carbon       | AA |
| R204   | VRD-RM2HD562J | J | 5.6k 1/2W Carbon       | AA |
| R205   | VRD-RM2HD682J | J | 6.8k 1/2W Carbon       | AA |
| R206   | VRD-RA2BE333J | J | 33k 1/8W Carbon        | AA |
| R207   | VRD-RA2BE564J | J | 560k 1/8W Carbon       | AA |
| R210   | VRD-RA2BE104J | J | 100k 1/8W Carbon       | AA |
| R211   | VRD-RA2BE823J | J | 82k 1/8W Carbon        | AA |
| R212   | VRD-RA2EE105J | J | 1M 1/4W Carbon         | AA |
| R213   | VRD-RA2BE681J | J | 680 1/8W Carbon        | AA |
| R214   | VRD-RA2BE103J | J | 10k 1/8W Carbon        | AA |
| R215   | VRD-RA2BE154J | J | 150k 1/8W Carbon       | AA |
| R216   | VRD-RA2BE393J | J | 39k 1/8W Carbon        | AA |
| R217   | VRD-RA2BE473J | J | 47k 1/8W Carbon        | AA |
| R218   | VRD-RA2BE392J | J | 3.9k 1/8W Carbon       | AA |
| R219   | See Controls  |   |                        |    |
| R220   | VRD-RA2BE152J | J | 1.5k 1/8W Carbon       | AA |
| R223   | VRD-RA2BE221J | J | 220 1/8W Carbon        | AA |
| R226   | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA |
| R227   | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA |
| R228   | VRD-RA2BE332J | J | 3.3k 1/8W Carbon       | AA |
| R229   | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA |
| R233   | VRD-RA2BE123J | J | 12k 1/8W Carbon        | AA |
| R234   | See Controls  |   |                        |    |
| R235   | VRD-RA2BE222J | J | 2.2k 1/8W Carbon       | AA |
| R236   | VRD-RA2BE272J | J | 2.7k 1/8W Carbon       | AA |
| R237   | VRD-RA2EE332J | J | 3.3k 1/4W Carbon       | AA |
| R238   | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA |
| R239   | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA |
| R240   | VRD-RA2BE392J | J | 3.9k 1/8W Carbon       | AA |
| R243   | VRD-RA2BE153J | J | 15k 1/8W Carbon        | AA |
| R301   | VRD-RA2BE100J | J | 10 1/8W Carbon         | AA |
| R302   | VRD-RA2BE100J | J | 10 1/8W Carbon         | AA |
| R303   | VRD-RA2BE101J | J | 100 1/8W Carbon        | AA |
| △ R304 | VRG-RL2HB2R2J | J | 2.2 1/2W Fuse Resistor | AB |
| △ R305 | VRG-RL2HB2R2J | J | 2.2 1/2W Fuse Resistor | AB |
| R306   | VRD-RA2BE183J | J | 18k 1/8W Carbon        | AA |
| R307   | VRD-RA2BE681J | J | 680 1/8W Carbon        | AA |
| R308   | VRD-RA2BE102J | J | 1k 1/8W Carbon         | AA |
| R309   | VRD-RA2BE183J | J | 18k 1/8W Carbon        | AA |
| R310   | VRD-RA2BE681J | J | 680 1/8W Carbon        | AA |
| R311   | VRD-RA2BE102J | J | 1k 1/8W Carbon         | AA |
| R313   | VRD-RA2BE824J | J | 820k 1/8W Carbon       | AA |
| R314   | VRD-RA2BE153J | J | 15k 1/8W Carbon        | AA |

| Ref. No. | Part No. | ★ | Description | Code |
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### RESISTORS (Continued)

|      |               |   |                  |    |
|------|---------------|---|------------------|----|
| R315 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon | AA |
| R316 | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R317 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon | AA |
| R318 | VRD-RA2BE123J | J | 12k 1/8W Carbon  | AA |
| R319 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon | AA |
| R320 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R321 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R322 | VRD-RA2BE224J | J | 220k 1/8W Carbon | AA |
| R323 | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R324 | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R325 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R326 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R327 | VRD-RA2BE122J | J | 1.2k 1/8W Carbon | AA |
| R328 | VRD-RA2BE122J | J | 1.2k 1/8W Carbon | AA |
| R329 | VRD-RA2BE103J | J | 10k 1/8W Carbon  | AA |
| R330 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R331 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R332 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R333 | See Controls  |   |                  |    |
| R334 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon | AA |
| R336 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R337 | VRD-RA2BE563J | J | 56k 1/8W Carbon  | AA |
| R340 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R341 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R342 | VRD-RA2BE273J | J | 27k 1/8W Carbon  | AA |
| R401 | VRD-RA2BE152J | J | 1.5k 1/8W Carbon | AA |
| R403 | See Controls  |   |                  |    |
| R404 | VRDRAN2BE123J | J | 12k 1/8W Carbon  | AA |
| R405 | VRD-RA2BE182J | J | 1.8k 1/8W Carbon | AA |
| R406 | VRD-RA2BE681J | J | 680 1/8W Carbon  | AA |
| R407 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R408 | VRD-RA2BE681J | J | 680 1/8W Carbon  | AA |
| R409 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R410 | VRD-RA2BE563J | J | 56k 1/8W Carbon  | AA |
| R411 | VRD-RA2BE391J | J | 390 1/8W Carbon  | AA |
| R412 | VRD-RA2BE103J | J | 10k 1/8W Carbon  | AA |
| R413 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R414 | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R415 | VRD-RA2EE224J | J | 220k 1/4W Carbon | AA |
| R416 | See Controls  |   |                  |    |
| R417 | VRD-RA2EE824J | J | 820k 1/4W Carbon | AA |
| R418 | VRD-RA2BE103J | J | 10k 1/8W Carbon  | AA |
| R419 | VRD-RA2BE272J | J | 2.7k 1/8W Carbon | AA |
| R420 | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R421 | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R422 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R423 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R424 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon | AA |
| R425 | VRD-RA2BE152J | J | 1.5k 1/8W Carbon | AA |
| R426 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R427 | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R428 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R429 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R430 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |

| Ref. No.                       | Part No.      | * | Description           | Code |
|--------------------------------|---------------|---|-----------------------|------|
| <b>PWB-A DUNTK7960WEV2</b>     |               |   |                       |      |
| <b>MOTHER UNIT (Continued)</b> |               |   |                       |      |
| <b>RESISTORS (Continued)</b>   |               |   |                       |      |
| R431                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R432                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R433                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R434                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R435                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R437                           | VRD-RA2BE153J | J | 15k 1/8W Carbon       | AA   |
| R438                           | VRD-RA2BE153J | J | 15k 1/8W Carbon       | AA   |
| R439                           | VRD-RA2BE153J | J | 15k 1/8W Carbon       | AA   |
| R442                           | VRD-RA2BE823J | J | 82k 1/8W Carbon       | AA   |
| R443                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R444                           | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA   |
| R445                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R446                           | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA   |
| R447                           | VRD-RA2BE224J | J | 220k 1/8W Carbon      | AA   |
| △ R449                         | VRG-RL2HB220J | J | 22 1/2W Fuse Resistor | AB   |
| R450                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R451                           | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA   |
| △ R452                         | VRG-RL2HB100J | J | 10 1/2W Fuse Resistor | AB   |
| R453                           | VRD-RA2BE821J | J | 820 1/8W Carbon       | AA   |
| R454                           | VRD-RA2BE821J | J | 820 1/8W Carbon       | AA   |
| R455                           | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA   |
| R456                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R457                           | VRD-RA2BE151J | J | 150 1/8W Carbon       | AA   |
| R458                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| △ R459                         | VRG-RL2HB220J | J | 22 1/2W Fuse Resistor | AB   |
| R460                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R461                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R462                           | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA   |
| R463                           | VRD-RA2BE750J | J | 75 1/8W Carbon        | AA   |
| R464                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R465                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R466                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R467                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R468                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R469                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R470                           | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA   |
| R471                           | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA   |
| R472                           | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA   |
| R473                           | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA   |
| R474                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R475                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R476                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R477                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R478                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R479                           | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA   |
| R480                           | VRD-RA2BE563J | J | 56k 1/8W Carbon       | AA   |
| R481                           | VRD-RA2BE563J | J | 56k 1/8W Carbon       | AA   |
| R482                           | VRD-RA2BE563J | J | 56k 1/8W Carbon       | AA   |
| R483                           | VRD-RA2BE563J | J | 56k 1/8W Carbon       | AA   |
| R484                           | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA   |
| R485                           | VRD-RA2BE183J | J | 18k 1/8W Carbon       | AA   |

| Ref. No.                     | Part No.            | * | Description           | Code |
|------------------------------|---------------------|---|-----------------------|------|
| <b>RESISTORS (Continued)</b> |                     |   |                       |      |
| R486                         | VRD-RA2BE223J       | J | 22k 1/8W Carbon       | AA   |
| R490                         | VRD-RA2BE563J       | J | 56k 1/8W Carbon       | AA   |
| R491                         | VRD-RA2BE102J       | J | 1k 1/8W Carbon        | AA   |
| R492                         | VRD-RA2BE103J       | J | 10k 1/8W Carbon       | AA   |
| R493                         | VRD-RA2BE222J       | J | 2.2k 1/8W Carbon      | AA   |
| R498                         | VRD-RA2BE103J       | J | 10k 1/8W Carbon       | AA   |
| R501                         | VRD-VV3DB101J       | J | 100 2W Metal Oxide    | AA   |
| R502                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R503                         | VRD-RA2BE103J       | J | 10k 1/8W Carbon       | AA   |
| R504                         | VRD-RA2BE223J       | J | 22k 1/8W Carbon       | AA   |
| R505                         | VRD-RA2BE153J       | J | 15k 1/8W Carbon       | AA   |
| R506                         | VRD-RA2BE683J       | J | 68k 1/8W Carbon       | AA   |
| R507                         | VRD-RM2HD102J       | J | 1k 1/2W Carbon        | AA   |
| R508                         | VRD-RA2BE102J       | J | 1k 1/8W Carbon        | AA   |
| R509                         | VRD-RA2BE393J       | J | 39k 1/8W Carbon       | AA   |
| R510                         | <i>See Controls</i> |   |                       |      |
| R511                         | VRD-RA2BE333J       | J | 33k 1/8W Carbon       | AA   |
| R512                         | VRD-RA2BE562J       | J | 5.6k 1/8W Carbon      | AA   |
| R513                         | VRD-RA2BE101J       | J | 100 1/8W Carbon       | AA   |
| R514                         | <i>See Controls</i> |   |                       |      |
| R515                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R516                         | VRD-RA2BE563J       | J | 56k 1/8W Carbon       | AA   |
| R517                         | VRD-RA2BE273J       | J | 27k 1/8W Carbon       | AA   |
| R518                         | VRD-RA2BE273J       | J | 27k 1/8W Carbon       | AA   |
| R519                         | VRD-RM2HD391J       | J | 390 1/2W Carbon       | AA   |
| R520                         | VRD-RM2HD2R7J       | J | 2.7 1/2W Carbon       | AA   |
| R521                         | VRD-RM2HD2R7J       | J | 2.7 1/2W Carbon       | AA   |
| R522                         | VRD-RM2HD2R7J       | J | 2.7 1/2W Carbon       | AA   |
| R523                         | VRD-VV3DB221J       | J | 220 2W Metal Oxide    | AA   |
| R524                         | VRD-VV3DB271J       | J | 270 2W Metal Oxide    | AA   |
| R525                         | VRD-VV3DB821J       | J | 820 2W Metal Oxide    | AA   |
| △ R526                       | VRG-RL2HB470J       | J | 47 1/2W Fuse Resistor | AB   |
| R527                         | VRD-RA2BE224J       | J | 220k 1/8W Carbon      | AA   |
| R528                         | VRD-RA2BE273J       | J | 27k 1/8W Carbon       | AA   |
| R529                         | VRD-RA2BE123J       | J | 12k 1/8W Carbon       | AA   |
| R530                         | VRD-RA2BE123J       | J | 12k 1/8W Carbon       | AA   |
| R531                         | VRD-RA2BE223J       | J | 22k 1/8W Carbon       | AA   |
| R550                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R601                         | VRD-RM2HD121J       | J | 120 1/2W Carbon       | AA   |
| R602                         | <i>See Controls</i> |   |                       |      |
| R603                         | VRD-RA2BE222J       | J | 2.2k 1/8W Carbon      | AA   |
| R604                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R605                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R606                         | VRD-RA2EE820J       | J | 82 1/4W Carbon        | AA   |
| R607                         | VRD-RA2BE392J       | J | 3.9k 1/8W Carbon      | AA   |
| R608                         | VRD-RA2BE103J       | J | 10k 1/8W Carbon       | AA   |
| R609                         | VRD-RU2EE471J       | J | 470 1/4W Carbon       | AA   |
| R610                         | VRD-RM2HD332J       | J | 3.3k 1/2W Carbon      | AA   |
| R611                         | VRD-RA2BE273J       | J | 27k 1/8W Carbon       | AA   |
| R612                         | VRD-RA2BE562J       | J | 5.6k 1/8W Carbon      | AA   |
| R613                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R614                         | VRD-RA2BE473J       | J | 47k 1/8W Carbon       | AA   |
| R615                         | VRD-RA2BE103J       | J | 10k 1/8W Carbon       | AA   |
| R616                         | VRD-RA2EE564J       | J | 560k 1/4W Carbon      | AA   |

| Ref. No. | Part No. | * | Description | Code |
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**PWB-A DUNTK7960WEV2**  
**MOTHER UNIT (Continued)**

**RESISTORS (Continued)**

|       |               |   |                  |    |
|-------|---------------|---|------------------|----|
| R617  | VRD-RA2EE334J | J | 330k 1/4W Carbon | AA |
| R618  | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R620  | VRD-RM2HD820J | J | 82 1/2W Carbon   | AA |
| R621  | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R623  | VRD-RA2BE100J | J | 10 1/8W Carbon   | AA |
| R625  | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R626  | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R801  | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R802  | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R803  | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R804  | VRD-RA2BE121J | J | 120 1/8W Carbon  | AA |
| R805  | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R806  | VRD-RA2BE121J | J | 120 1/8W Carbon  | AA |
| R807  | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R808  | VRD-RA2BE121J | J | 120 1/8W Carbon  | AA |
| R809  | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R811  | VRD-RA2BE272J | J | 2.7k 1/8W Carbon | AA |
| R812  | VRD-RA2BE272J | J | 2.7k 1/8W Carbon | AA |
| R813  | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R814  | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R815  | VRD-RA2BE750J | J | 75 1/8W Carbon   | AA |
| R818  | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R819  | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R822  | VRD-RA2BE273J | J | 27k 1/8W Carbon  | AA |
| R823  | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R824  | VRD-RA2BE122J | J | 1.2k 1/8W Carbon | AA |
| R825  | VRD-RA2BE560J | J | 56 1/8W Carbon   | AA |
| R1001 | VRD-RM2HD101J | J | 100 1/2W Carbon  | AA |
| R1002 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1003 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R1004 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1005 | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R1006 | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R1008 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1009 | VRD-RA2BE683J | J | 68k 1/8W Carbon  | AA |
| R1010 | VRD-RM2HD820J | J | 82 1/2W Carbon   | AA |
| R1011 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1012 | VRD-RA2BE683J | J | 68k 1/8W Carbon  | AA |
| R1013 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1014 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1015 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1016 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1017 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1018 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1019 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1020 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1021 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1022 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1023 | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R1024 | VRD-RA2BE104J | J | 100k 1/8W Carbon | AA |
| R1025 | VRD-RA2BE563J | J | 56k 1/8W Carbon  | AA |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

**RESISTORS (Continued)**

|       |               |   |                    |    |
|-------|---------------|---|--------------------|----|
| R1026 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1027 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1028 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1029 | VRD-RA2BE224J | J | 220k 1/8W Carbon   | AA |
| R1030 | VRD-RA2EE105J | J | 1M 1/4W Carbon     | AA |
| R1031 | VRD-RA2BE274J | J | 270k 1/8W Carbon   | AA |
| R1032 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon   | AA |
| R1033 | VRD-RA2BE223J | J | 22k 1/8W Carbon    | AA |
| R1034 | VRD-RA2BE101J | J | 100 1/8W Carbon    | AA |
| R1035 | VRD-RA2BE101J | J | 100 1/8W Carbon    | AA |
| R1036 | VRD-RA2BE333J | J | 33k 1/8W Carbon    | AA |
| R1037 | VRD-RA2BE101J | J | 100 1/8W Carbon    | AA |
| R1038 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1039 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1040 | VRD-RA2BE682J | J | 6.8k 1/8W Carbon   | AA |
| R1041 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1042 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1043 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1044 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon   | AA |
| R1045 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1046 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1047 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1048 | VRD-RA2BE392J | J | 3.9k 1/8W Carbon   | AA |
| R1049 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon   | AA |
| R1050 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1051 | VRD-RA2BE273J | J | 27k 1/8W Carbon    | AA |
| R1052 | VRD-RA2BE223J | J | 22k 1/8W Carbon    | AA |
| R1053 | VRD-RA2BE473J | J | 47k 1/8W Carbon    | AA |
| R1054 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1056 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1058 | VRD-RA2BE473J | J | 47k 1/8W Carbon    | AA |
| R1059 | VRD-RA2BE473J | J | 47k 1/8W Carbon    | AA |
| R1060 | VRS-VV3DB153J | J | 15k 2W Metal Oxide | AA |
| R1061 | VRD-RA2BE153J | J | 15k 1/8W Carbon    | AA |
| R1062 | VRD-RA2BE333J | J | 33k 1/8W Carbon    | AA |
| R1063 | VRD-RA2BE333J | J | 33k 1/8W Carbon    | AA |
| R1064 | VRD-RA2BE684J | J | 680k 1/8W Carbon   | AA |
| R1065 | VRD-RA2BE153J | J | 15k 1/8W Carbon    | AA |
| R1066 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1067 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon   | AA |
| R1068 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1069 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1070 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon   | AA |
| R1071 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon   | AA |
| R1072 | VRD-RA2BE681J | J | 680 1/8W Carbon    | AA |
| R1073 | VRD-RA2BE681J | J | 680 1/8W Carbon    | AA |
| R1074 | VRD-RA2BE223J | J | 22k 1/8W Carbon    | AA |
| R1075 | VRD-RA2BE153J | J | 15k 1/8W Carbon    | AA |
| R1076 | VRD-RA2BE183J | J | 18k 1/8W Carbon    | AA |
| R1077 | VRD-RA2BE102J | J | 1k 1/8W Carbon     | AA |
| R1078 | VRD-RA2BE152J | J | 1.5k 1/8W Carbon   | AA |
| R1079 | VRD-RA2BE182J | J | 1.8k 1/8W Carbon   | AA |
| R1080 | VRD-RA2BE272J | J | 2.7k 1/8W Carbon   | AA |
| R1081 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

# **PWB-A DUNTK7960WEV2** **MOTHER UNIT (Continued)**

## RESISTORS (Continued)

|       |               |   |                     |    |
|-------|---------------|---|---------------------|----|
| R1082 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1083 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon    | AA |
| R1084 | VRD-RA2BE563J | J | 56k 1/8W Carbon     | AA |
| R1085 | VRD-RA2BE563J | J | 56k 1/8W Carbon     | AA |
| R1086 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1087 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon    | AA |
| R1088 | VRD-RA2BE393J | J | 39k 1/8W Carbon     | AA |
| R1089 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon    | AA |
| R1090 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1091 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1093 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1094 | VRD-RA2BE392J | J | 3.9k 1/8W Carbon    | AA |
| R1095 | VRD-RA2BE683J | J | 68k 1/8W Carbon     | AA |
| R1096 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1097 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon    | AA |
| R1098 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1121 | VRS-VV3DB472J | J | 4.7k 2W Metal Oxide | AA |
| R1122 | VRS-VV3DB272J | J | 2.7k 2W Metal Oxide | AA |
| R1123 | VRD-RM2HD562J | J | 5.6k 1/2W Carbon    | AA |
| R1124 | VRD-RM2HD151J | J | 150 1/2W Carbon     | AA |
| R1125 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon    | AA |
| R1126 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon    | AA |
| R1127 | VRD-RA2BE223J | J | 22k 1/8W Carbon     | AA |
| R1128 | VRD-RA2BE563J | J | 56k 1/8W Carbon     | AA |
| R1129 | VRD-RA2BE333J | J | 33k 1/8W Carbon     | AA |
| R1130 | VRD-RA2BE333J | J | 33k 1/8W Carbon     | AA |
| R1131 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1133 | VRD-RM2HD181J | J | 180 1/2W Carbon     | AA |
| R1134 | VRD-RA2BE224J | J | 220k 1/8W Carbon    | AA |
| R1135 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1136 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1137 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1138 | VRD-RA2BE393J | J | 39k 1/8W Carbon     | AA |
| R1139 | VRD-RA2BE564J | J | 560k 1/8W Carbon    | AA |
| R1150 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1151 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1152 | VRD-RA2BE681J | J | 680 1/8W Carbon     | AA |

## RELAY AND SWITCHES

|       |               |   |                         |    |
|-------|---------------|---|-------------------------|----|
| RY701 | RRLYZ0020CEN1 | J | Power Relay             | AN |
| S401  | QSW-B0015CEZZ | J | Service Switch          | AC |
| S501  | QSW-B0018CEZZ | J | Vertical Center Adjust. | AD |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

## MISCELLANEOUS PARTS

|        |               |   |                  |    |
|--------|---------------|---|------------------|----|
| FB1001 | RBLN-0036CEZZ | J | Ferrite Bead     | AB |
| J401   | QTANJ0632CEZZ | J | Jack, A/V        | AH |
| J402   | QSOCD0408CEZZ | J | Socket           | AG |
| P302   | QPLGN0413GEZZ | J | Plug 4-pin, (S)  | AB |
| P303   | QPLGN0213GEZZ | J | Plug 2-pin, (XS) | AB |
| P401   | QPLGN0578GEZZ | J | Plug 5-pin, (KY) | AB |
| P402   | QPLGN0278GEZZ | J | Plug 2-pin, (CC) | AA |
| P403   | QPLGN0278GEZZ | J | Plug 2-pin, (CP) | AA |
| P404   | QPLGN0278GEZZ | J | Plug 2-pin, (CS) | AA |
| P405   | QPLGN0878GEZZ | J | Plug 8-pin, (SY) | AC |
| P406   | QPLGN0378GEZZ | J | Plug 3-pin, (SV) | AB |
| P501   | QPLGN0413GEZZ | J | Plug 4-pin, (VO) | AB |
| P502   | QPLGN0278GEZZ | J | Plug 2-pin, (XV) | AA |
| P606   | QPLGN0878GEZZ | J | Plug 8-pin, (W)  | AC |
| P607   | QPLGN0513GEZZ | J | Plug 5-pin, (XA) | AB |
| P704   | QPLGN0304CEZZ | J | Plug 3-pin, (AB) | AB |
| P709   | QPLGN0304CEZZ | J | Plug 3-pin, (A)  | AB |
| P1001  | QPLGN0478GEZZ | J | Plug 4-pin, (TA) | AB |
| P1002  | QPLGN0278GEZZ | J | Plug 2-pin, (TB) | AA |
| P1003  | QPLGN0313GEZZ | J | Plug 3-pin, (TC) | AB |
| P1004  | QPLGN0213GEZZ | J | Plug 2-pin, (TD) | AB |
| P1005  | QPLGN0678GEZZ | J | Plug 6-pin, (O)  | AB |
| P1006  | QPLGN0913GEZZ | J | Plug 9-pin, (RS) | AB |

— End of PWB-A —



| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
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**PWB-A DUNTK7960WEV2**  
**MOTHER UNIT (Continued)**

**RESISTORS (Continued)**

|       |               |   |                  |    |
|-------|---------------|---|------------------|----|
| R617  | VRD-RA2EE334J | J | 330k 1/4W Carbon | AA |
| R618  | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R620  | VRD-RM2HD820J | J | 82 1/2W Carbon   | AA |
| R621  | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R623  | VRD-RA2BE100J | J | 10 1/8W Carbon   | AA |
| R625  | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R626  | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R801  | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R802  | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R803  | VRD-RA2BE392J | J | 3.9k 1/8W Carbon | AA |
| R804  | VRD-RA2BE121J | J | 120 1/8W Carbon  | AA |
| R805  | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R806  | VRD-RA2BE121J | J | 120 1/8W Carbon  | AA |
| R807  | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R808  | VRD-RA2BE121J | J | 120 1/8W Carbon  | AA |
| R809  | VRD-RM2HD471J | J | 470 1/2W Carbon  | AA |
| R811  | VRD-RA2BE272J | J | 2.7k 1/8W Carbon | AA |
| R812  | VRD-RA2BE272J | J | 2.7k 1/8W Carbon | AA |
| R813  | VRD-RA2BE562J | J | 5.6k 1/8W Carbon | AA |
| R814  | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R815  | VRD-RA2BE750J | J | 75 1/8W Carbon   | AA |
| R818  | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R819  | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R822  | VRD-RA2BE273J | J | 27k 1/8W Carbon  | AA |
| R823  | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R824  | VRD-RA2BE122J | J | 1.2k 1/8W Carbon | AA |
| R825  | VRD-RA2BE560J | J | 56 1/8W Carbon   | AA |
| R1001 | VRD-RM2HD101J | J | 100 1/2W Carbon  | AA |
| R1002 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1003 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon | AA |
| R1004 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1005 | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R1006 | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R1008 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1009 | VRD-RA2BE683J | J | 68k 1/8W Carbon  | AA |
| R1010 | VRD-RM2HD820J | J | 82 1/2W Carbon   | AA |
| R1011 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1012 | VRD-RA2BE683J | J | 68k 1/8W Carbon  | AA |
| R1013 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1014 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1015 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1016 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1017 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1018 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1019 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1020 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1021 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1022 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R1023 | VRD-RA2BE473J | J | 47k 1/8W Carbon  | AA |
| R1024 | VRD-RA2BE104J | J | 100k 1/8W Carbon | AA |
| R1025 | VRD-RA2BE563J | J | 56k 1/8W Carbon  | AA |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

**RESISTORS (Continued)**

|       |               |   |                    |    |
|-------|---------------|---|--------------------|----|
| R1026 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1027 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1028 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1029 | VRD-RA2BE224J | J | 220k 1/8W Carbon   | AA |
| R1030 | VRD-RA2EE105J | J | 1M 1/4W Carbon     | AA |
| R1031 | VRD-RA2BE274J | J | 270k 1/8W Carbon   | AA |
| R1032 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon   | AA |
| R1033 | VRD-RA2BE223J | J | 22k 1/8W Carbon    | AA |
| R1034 | VRD-RA2BE101J | J | 100 1/8W Carbon    | AA |
| R1035 | VRD-RA2BE101J | J | 100 1/8W Carbon    | AA |
| R1036 | VRD-RA2BE333J | J | 33k 1/8W Carbon    | AA |
| R1037 | VRD-RA2BE101J | J | 100 1/8W Carbon    | AA |
| R1038 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1039 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1040 | VRD-RA2BE682J | J | 6.8k 1/8W Carbon   | AA |
| R1041 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1042 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1043 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1044 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon   | AA |
| R1045 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1046 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1047 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |
| R1048 | VRD-RA2BE392J | J | 3.9k 1/8W Carbon   | AA |
| R1049 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon   | AA |
| R1050 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1051 | VRD-RA2BE273J | J | 27k 1/8W Carbon    | AA |
| R1052 | VRD-RA2BE223J | J | 22k 1/8W Carbon    | AA |
| R1053 | VRD-RA2BE473J | J | 47k 1/8W Carbon    | AA |
| R1054 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1056 | VRD-RA2BE103J | J | 10k 1/8W Carbon    | AA |
| R1058 | VRD-RA2BE473J | J | 47k 1/8W Carbon    | AA |
| R1059 | VRD-RA2BE473J | J | 47k 1/8W Carbon    | AA |
| R1060 | VRS-VV3DB153J | J | 15k 2W Metal Oxide | AA |
| R1061 | VRD-RA2BE153J | J | 15k 1/8W Carbon    | AA |
| R1062 | VRD-RA2BE333J | J | 33k 1/8W Carbon    | AA |
| R1063 | VRD-RA2BE333J | J | 33k 1/8W Carbon    | AA |
| R1064 | VRD-RA2BE684J | J | 680k 1/8W Carbon   | AA |
| R1065 | VRD-RA2BE153J | J | 15k 1/8W Carbon    | AA |
| R1066 | VRD-RA2BE123J | J | 12k 1/8W Carbon    | AA |
| R1067 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon   | AA |
| R1068 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1069 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon   | AA |
| R1070 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon   | AA |
| R1071 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon   | AA |
| R1072 | VRD-RA2BE681J | J | 680 1/8W Carbon    | AA |
| R1073 | VRD-RA2BE681J | J | 680 1/8W Carbon    | AA |
| R1074 | VRD-RA2BE223J | J | 22k 1/8W Carbon    | AA |
| R1075 | VRD-RA2BE153J | J | 15k 1/8W Carbon    | AA |
| R1076 | VRD-RA2BE183J | J | 18k 1/8W Carbon    | AA |
| R1077 | VRD-RA2BE102J | J | 1k 1/8W Carbon     | AA |
| R1078 | VRD-RA2BE152J | J | 1.5k 1/8W Carbon   | AA |
| R1079 | VRD-RA2BE182J | J | 1.8k 1/8W Carbon   | AA |
| R1080 | VRD-RA2BE272J | J | 2.7k 1/8W Carbon   | AA |
| R1081 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon   | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

## PWB-A DUNTK7960WEV2 MOTHER UNIT (Continued)

### RESISTORS (Continued)

|       |               |   |                     |    |
|-------|---------------|---|---------------------|----|
| R1082 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1083 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon    | AA |
| R1084 | VRD-RA2BE563J | J | 56k 1/8W Carbon     | AA |
| R1085 | VRD-RA2BE563J | J | 56k 1/8W Carbon     | AA |
| R1086 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1087 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon    | AA |
| R1088 | VRD-RA2BE393J | J | 39k 1/8W Carbon     | AA |
| R1089 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon    | AA |
| R1090 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1091 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1093 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1094 | VRD-RA2BE392J | J | 3.9k 1/8W Carbon    | AA |
| R1095 | VRD-RA2BE683J | J | 68k 1/8W Carbon     | AA |
| R1096 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1097 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon    | AA |
| R1098 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1121 | VRS-VV3DB472J | J | 4.7k 2W Metal Oxide | AA |
| R1122 | VRS-VV3DB272J | J | 2.7k 2W Metal Oxide | AA |
| R1123 | VRD-RM2HD562J | J | 5.6k 1/2W Carbon    | AA |
| R1124 | VRD-RM2HD151J | J | 150 1/2W Carbon     | AA |
| R1125 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon    | AA |
| R1126 | VRD-RA2BE472J | J | 4.7k 1/8W Carbon    | AA |
| R1127 | VRD-RA2BE223J | J | 22k 1/8W Carbon     | AA |
| R1128 | VRD-RA2BE563J | J | 56k 1/8W Carbon     | AA |
| R1129 | VRD-RA2BE333J | J | 33k 1/8W Carbon     | AA |
| R1130 | VRD-RA2BE333J | J | 33k 1/8W Carbon     | AA |
| R1131 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1133 | VRD-RM2HD181J | J | 180 1/2W Carbon     | AA |
| R1134 | VRD-RA2BE224J | J | 220k 1/8W Carbon    | AA |
| R1135 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1136 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1137 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R1138 | VRD-RA2BE393J | J | 39k 1/8W Carbon     | AA |
| R1139 | VRD-RA2BE564J | J | 560k 1/8W Carbon    | AA |
| R1150 | VRD-RA2BE473J | J | 47k 1/8W Carbon     | AA |
| R1151 | VRD-RA2BE562J | J | 5.6k 1/8W Carbon    | AA |
| R1152 | VRD-RA2BE681J | J | 680 1/8W Carbon     | AA |

### RELAY AND SWITCHES

|         |               |   |                         |    |
|---------|---------------|---|-------------------------|----|
| △ RY701 | RRLYZ0020CEN1 | J | Power Relay             | AN |
| S401    | QSW-B0015CEZZ | J | Service Switch          | AC |
| S501    | QSW-B0018CEZZ | J | Vertical Center Adjust. | AD |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

### MISCELLANEOUS PARTS

|        |               |   |                  |    |
|--------|---------------|---|------------------|----|
| FB1001 | RBLN-0036CEZZ | J | Ferrite Bead     | AB |
| △ J401 | QTANJ0632CEZZ | J | Jack, A/V        | AH |
| △ J402 | QSOCD0408CEZZ | J | Socket           | AG |
| P302   | QPLGN0413GEZZ | J | Plug 4-pin, (S)  | AB |
| P303   | QPLGN0213GEZZ | J | Plug 2-pin, (XS) | AB |
| P401   | QPLGN0578GEZZ | J | Plug 5-pin, (KY) | AB |
| P402   | QPLGN0278GEZZ | J | Plug 2-pin, (CC) | AA |
| P403   | QPLGN0278GEZZ | J | Plug 2-pin, (CP) | AA |
| P404   | QPLGN0278GEZZ | J | Plug 2-pin, (CS) | AA |
| P405   | QPLGN0878GEZZ | J | Plug 8-pin, (SY) | AC |
| P406   | QPLGN0378GEZZ | J | Plug 3-pin, (SV) | AB |
| P501   | QPLGN0413GEZZ | J | Plug 4-pin, (VO) | AB |
| P502   | QPLGN0278GEZZ | J | Plug 2-pin, (XV) | AA |
| P606   | QPLGN0878GEZZ | J | Plug 8-pin, (W)  | AC |
| P607   | QPLGN0513GEZZ | J | Plug 5-pin, (XA) | AB |
| △ P704 | QPLGN0304CEZZ | J | Plug 3-pin, (AB) | AB |
| △ P709 | QPLGN0304CEZZ | J | Plug 3-pin, (A)  | AB |
| P1001  | QPLGN0478GEZZ | J | Plug 4-pin, (TA) | AB |
| P1002  | QPLGN0278GEZZ | J | Plug 2-pin, (TB) | AA |
| P1003  | QPLGN0313GEZZ | J | Plug 3-pin, (TC) | AB |
| P1004  | QPLGN0213GEZZ | J | Plug 2-pin, (TD) | AB |
| P1005  | QPLGN0678GEZZ | J | Plug 6-pin, (O)  | AB |
| P1006  | QPLGN0913GEZZ | J | Plug 9-pin, (RS) | AB |

— End of PWB-A —

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

# **PWB-B DUNTK7959WEV1** **DEFLECTION / POWER UNIT**

## **INTEGRATED CIRCUITS**

|        |                 |  |         |    |
|--------|-----------------|--|---------|----|
| IC601  | VHILM358P/-1 J  |  | LM358P  | AC |
| △IC701 | VHISTR56309-1 J |  |         | AU |
| △IC702 | RH-FX0012CEZZ J |  |         | AF |
| △IC703 | VHISE120N/-1 J  |  | SE120N  | AG |
| IC2603 | VHITA7812S/-1 J |  | TA7812S | AD |

## **TRANSISTORS**

|        |                 |  |            |    |
|--------|-----------------|--|------------|----|
| △Q605  | VS2SD1554//1E J |  | 2SD1554    | AL |
| △Q615  | VS2SA1015Y/1E J |  | 2SA1015(Y) | AC |
| △Q701  | VS2SC945AP/-1 J |  | 2SC945AP   | AB |
| △Q2601 | VS2SD1555//1E J |  | 2SD1555    | AP |
| Q2602  | VS2SC3328Y/1E J |  | 2SC3328(Y) | AD |
| Q2603  | VS2SC945AP/-1 J |  | 2SC945AP   | AB |

## **DIODES**

|        |                 |  |             |    |
|--------|-----------------|--|-------------|----|
| D609   | RH-DX0130CEZZ J |  |             | AE |
| D615   | VHD1SS119//1E J |  | 1SS119      | AA |
| D616   | VHD1SS119//1E J |  | 1SS119      | AA |
| D617   | VHD1SS119//1E J |  | 1SS119      | AA |
| D619   | VHD1SS119//1E J |  | 1SS119      | AA |
| D620   | VHD1SS119//1E J |  | 1SS119      | AA |
| D621   | RH-EX0051CEZZ J |  | Zener Diode | AB |
| △D701  | RH-DX0336CEZZ J |  |             | AH |
| △D707  | RH-DX0202CEZZ J |  |             | AD |
| △D708  | VHD1SS119//1E J |  | 1SS119      | AA |
| △D710  | RH-DX0164CEZZ J |  |             | AC |
| D711   | RH-DX0382CEZZ J |  |             | AD |
| D712   | RH-DX0243CEZZ J |  |             | AF |
| D714   | RH-DX0243CEZZ J |  |             | AF |
| △D715  | RH-EX0152CEZZ J |  | Zener Diode | AE |
| △D730  | RH-DX0027CEZZ J |  |             | AE |
| D2603  | RH-DX0062CEZZ J |  |             | AD |
| D2604  | RH-DX0073CEZZ J |  |             | AD |
| D2605  | RH-DX0127CEZZ J |  |             | AC |
| D2606  | RH-DX0130CEZZ J |  |             | AE |
| △VA701 | RH-VX0022CEZZ J |  | Varistor    | AD |

## **THERMISTORS**

|       |                 |  |            |    |
|-------|-----------------|--|------------|----|
| TH601 | RH-HZ0006CEZZ J |  | Thermistor | AB |
|-------|-----------------|--|------------|----|

## **PACKAGED CIRCUIT**

|        |                 |  |                                 |    |
|--------|-----------------|--|---------------------------------|----|
| △PR701 | RMPTP0062CEZZ J |  | Positive Coefficient Thermistor | AH |
|--------|-----------------|--|---------------------------------|----|

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

## **COILS AND TRANSFORMERS**

|        |                 |  |                         |    |
|--------|-----------------|--|-------------------------|----|
| L601   | VP-CF390K0000 J |  | Coil, 39μH              | AB |
| L602   | RCiLZ0797CEZZ J |  | Coil                    | AK |
| L605   | RCiLP0087CEZZ J |  | Peaking Coil            | AE |
| L606   | RCiLZ0593CEZZ J |  | Coil, Horizontal Size   | AH |
| L711   | RCiLP0106CEZZ J |  | Peaking Coil            | AE |
| L712   | RCiLP0106CEZZ J |  | Peaking Coil            | AE |
| L713   | RCiLP0106CEZZ J |  | Peaking Coil            | AE |
| △L2701 | RCiLF0154CEZZ J |  | Coil, Line Filter       | AQ |
| △L2703 | RCiLF0154CEZZ J |  | Coil, Line Filter       | AQ |
| △T601  | RTRNZ0343CEN1 J |  | Horiz. Drive Trans.     | AG |
| △T602  | RTRNF1892CEZZ J |  | Flyback Trans. (F.B.T.) | BE |
| △T2701 | RTRNZ0505CEZZ J |  | Regulator Trans.        | BA |

## **CAPACITORS**

|       |                 |  |                         |    |
|-------|-----------------|--|-------------------------|----|
| C602  | VCKYPA2HB472K J |  | 4700p500V Ceramic       | AB |
| C605  | VCKYPA1HB102K J |  | 1000p50V Ceramic        | AA |
| C608  | VCFPPC2DB224J J |  | 0.22 200V M. Polyester  | AE |
| △C609 | VCFPPD3CA562H J |  | 5600p1.6kV M. Polyester | AE |
| △C610 | VCFPPD3CA472H J |  | 4700p1.6kV M. Polyester | AD |
| C614  | VCFYHA1HA104J J |  | 0.1 50V M. Polyester    | AB |
| C615  | VCFPPD2DB474J J |  | 0.47 200V M. Polyester  | AE |
| C616  | VCFPPC3CA152H J |  | 1500p1.6kV M. Polyester | AD |
| C617  | VCFPPD3CA222H J |  | 2200p1.6kV M. Polyester | AE |
| C618  | VCKYPA2HB102K J |  | 1000p500V Ceramic       | AA |
| C619  | VCEAGA2EW336M J |  | 33 250V Electrolytic    | AD |
| C620  | VCKYPA2HB102K J |  | 1000p500V Ceramic       | AA |
| C621  | VCEAGA1VW108M J |  | 1000 35V Electrolytic   | AD |
| C622  | VCFYHA1HA104J J |  | 0.1 50V M. Polyester    | AB |
| C624  | VCEAGA1EW107M J |  | 100 25V Electrolytic    | AD |
| C637  | VCEAGA1HW104M J |  | 0.1 50V Electrolytic    | AA |
| C653  | RC-EZ0322CEZZ J |  | 1000 250V Electrolytic  | AE |
| C657  | RC-KZ0029CEZZ J |  | 0.01 AC250V Ceramic     | AC |
| C658  | VCFYSB2EB224K J |  | 0.22 250V M. Polyester  | AD |
| C659  | VCEAGA1HW106M J |  | 10 50V Electrolytic     | AC |
| C661  | VCEAGA0JW337M J |  | 330 6.3V Electrolytic   | AB |
| C662  | VCEAGA1EW477M J |  | 470 25V Electrolytic    | AD |
| C663  | VCEAGA1CW337M J |  | 330 16V Electrolytic    | AC |
| △C703 | RC-EZ0358CEZZ J |  | 680 400V Electrolytic   | AX |
| △C704 | RC-KZ0029CEZZ J |  | 0.01 AC250V Ceramic     | AC |
| △C705 | RC-KZ0029CEZZ J |  | 0.01 AC250V Ceramic     | AC |
| △C706 | VCEAGA1HW227M J |  | 220 50V Electrolytic    | AC |
| △C707 | VCQYTA1HM222J J |  | 2200p50V Mylar          | AA |
| △C708 | RC-KZ0024CEZZ J |  | 1000p2kV Ceramic        | AC |
| △C710 | VCSATA1VE106K J |  | 10 35V Tantalum         | AE |
| △C711 | VCKYPA2HB102K J |  | 1000p500V Ceramic       | AA |
| △C712 | VCEAGA1EW107M J |  | 100 25V Electrolytic    | AD |
| △C713 | VCQPSC2JA333K J |  | 0.033 630V Mylar        | AB |
| △C714 | VCKYPH3DB561K J |  | 560p 2000V Ceramic      | AC |
| △C717 | VCFYHA1HA563J J |  | 0.056 50V M. Polyester  | AB |
| △C719 | VCFYHA1HA104J J |  | 0.1 50V M. Polyester    | AB |
| △C721 | RC-KZ0025CEZZ J |  | 6800p2kV Ceramic        | AC |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

# **PWB-B DUNTK7959WEV1** **DEFLECTION / POWER UNIT (Continued)**

## **CAPACITORS (Continued)**

|         |               |   |                        |    |
|---------|---------------|---|------------------------|----|
| C722    | RC-KZ0024CEZZ | J | 1000p2kV Ceramic       | AC |
| C723    | VCKYPA2HB102K | J | 1000p500V Ceramic      | AA |
| C725    | VCKYPA2HB102K | J | 1000p500V Ceramic      | AA |
| C726    | RC-EZ0070CEZZ | J | 330 160V Electrolytic  | AH |
| C727    | RC-EZ0322CEZZ | J | 1000 250V Electrolytic | AE |
| C728    | RC-EZ0322CEZZ | J | 1000 250V Electrolytic | AE |
| C730    | RC-EZ0069CEZZ | J | 220 160V Electrolytic  | AG |
| C731    | RC-EZ0322CEZZ | J | 1000 250V Electrolytic | AE |
| C732    | RC-EZ0322CEZZ | J | 1000 250V Electrolytic | AE |
| C733    | RC-KZ0029CEZZ | J | 0.01 AC250V Ceramic    | AC |
| △ C735  | VCFYHA1HA104J | J | 0.1 50V M. Polyester   | AB |
| △ C737  | RC-KZ0025CEZZ | J | 6800p2kV Ceramic       | AC |
| C2601   | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C2603   | VCKYPA2HB221K | J | 220p 500V Ceramic      | AA |
| C2604   | VCEAGA1EW227M | J | 220 25V Electrolytic   | AC |
| C2607   | VCFPPC2DB274J | J | 0.27 200V M. Polyester | AE |
| △ C2701 | RC-FZ0010GEZZ | J | 0.1 250V M. Polyester  | AE |
| △ C2702 | VCFYSB2EB224K | J | 0.22 250V M. Polyester | AD |

## **RESISTORS**

|        |               |   |                     |    |
|--------|---------------|---|---------------------|----|
| R619   | VRD-RM2HD331J | J | 330 1/2W Carbon     | AA |
| R622   | VRD-RA2BE104J | J | 100k1/8W Carbon     | AA |
| R624   | VRD-RA2EE125J | J | 1.2M1/4W Carbon     | AA |
| R627   | VRD-RA2BE564J | J | 560k1/8W Carbon     | AA |
| R628   | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| △ R631 | VRG-RF2EB470J | J | 47 1/4W Carbon      | AB |
| R668   | VRD-RM2HD102J | J | 1k 1/2W Carbon      | AA |
| R669   | VRD-RM2HD152J | J | 1.5k 1/2W Carbon    | AA |
| R670   | VRD-RM2HD152J | J | 1.5k 1/2W Carbon    | AA |
| R671   | VRS-SU2HB102J | J | 1k 1/2W Metal Oxide | AA |
| R672   | VRD-RA2EE393J | J | 39k 1/4W Carbon     | AA |
| R673   | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| R674   | VRD-RM2HD102J | J | 1k 1/2W Carbon      | AA |
| R675   | VRD-RA2EE103J | J | 10k 1/4W Carbon     | AA |
| R676   | VRD-RA2EE101J | J | 100 1/4W Carbon     | AA |
| R677   | VRN-VV3LB1R8J | J | 1.8 3W Metal Film   | AC |
| R678   | VRS-VV3LB222J | J | 2.2k 3W Metal Oxide | AB |
| R686   | VRD-RA2EE101J | J | 100 1/4W Carbon     | AA |
| △ R691 | VRN-VV3DB1R0J | J | 1 2W Metal Film     | AB |
| △ R692 | VRD-RA2BE103J | J | 10k 1/8W Carbon     | AA |
| △ R693 | VRD-RA2BE272J | J | 2.7k 1/8W Carbon    | AA |
| R694   | VRS-VV3DB220J | J | 22 2W Metal Oxide   | AA |
| △ R701 | RR-WZ0139CEZZ | J | 2.2 15W Cement      | AE |
| △ R702 | RR-WZ0139CEZZ | J | 2.2 15W Cement      | AE |
| △ R703 | VRD-RM2HD391J | J | 390 1/2W Carbon     | AA |
| △ R705 | VRD-RM2HD564J | J | 560k1/2W Carbon     | AA |
| △ R710 | RR-WZ0140CEZZ | J | 0.22 3W Cement      | AC |
| △ R711 | VRW-KX3HC180K | J | 18 5W Cement        | AC |
| △ R713 | VRD-RM2HD154J | J | 150k1/2W Carbon     | AA |

| Ref. No. | Part No. | * | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

## **RESISTORS (Continued)**

|         |               |   |                        |    |
|---------|---------------|---|------------------------|----|
| △ R714  | VRD-RM2HD154J | J | 150k1/2W Carbon        | AA |
| △ R717  | VRS-SV3LB333J | J | 33k 3W Metal Oxide     | AC |
| △ R718  | VRS-SV3LB390J | J | 39 3W Metal Oxide      | AC |
| △ R722  | VRD-RM2HD821J | J | 820 1/2W Carbon        | AA |
| △ R724  | VRC-UA2HG825K | J | 8.2M1/2W Solid         | AA |
| △ R725  | VRC-UA2HG825K | J | 8.2M1/2W Solid         | AA |
| R726    | VRD-RM2HD223J | J | 22k 1/2W Carbon        | AA |
| R727    | VRN-VV3DB1R2J | J | 1.2 2W Metal Film      | AA |
| △ R728  | RR-DZ0013CEZZ | J | 3.3M Special           | AD |
| △ R729  | VRD-RM2HD471J | J | 470 1/2W Carbon        | AA |
| △ R730  | VRD-RM2HD564J | J | 560k1/2W Carbon        | AA |
| △ R731  | VRD-RM2HD470J | J | 47 1/2W Carbon         | AA |
| △ R733  | VRG-RF2EB1R0J | J | 1 1/4W Fuse Resistor   | AB |
| △ R735  | VRD-RM2HD121J | J | 120 1/2W Carbon        | AA |
| R736    | VRN-KT3LB1R5J | J | 1.5 3W Metal Film      | AC |
| R740    | VRN-VV3DB1R2J | J | 1.2 2W Metal Film      | AA |
| R2601   | VRD-RM2HD470J | J | 47 1/2W Carbon         | AA |
| R2602   | VRD-RM2HD820J | J | 82 1/2W Carbon         | AA |
| R2603   | VRW-KX3HC470K | J | 47 5W Cement           | AC |
| R2604   | VRD-RA2EE221J | J | 220 1/4W Carbon        | AA |
| R2605   | VRD-RA2EE471J | J | 470 1/4W Carbon        | AA |
| R2606   | VRD-RA2EE102J | J | 1k 1/4W Carbon         | AA |
| R2607   | VRD-RA2BE101J | J | 100 1/8W Carbon        | AA |
| R2608   | VRD-RA2BE472J | J | 4.7k 1/8W Carbon       | AA |
| △ R2612 | VRG-RF2HB220J | J | 22 1/2W Fuse Resistor  | AB |
| R2613   | VRS-VV3DB680J | J | 68 2W Metal Oxide      | AA |
| R2614   | RR-WZ0141CEZZ | J | 3.3 15W Cement         | AE |
| R2615   | VRS-VV3DB470J | J | 47 2W Metal Oxide      | AA |
| △ R2616 | VRG-RF2HB1R0J | J | 1 1/2W Fuse Resistor   | AA |
| △ R2617 | VRG-RF2HB3R3J | J | 3.3 1/2W Fuse Resistor | AB |
| R2618   | VRD-RA2EE471J | J | 470 1/4W Carbon        | AA |
| R2619   | VRS-VV3DB561J | J | 560 2W Metal Oxide     | AA |
| R2620   | VRD-RA2EE560J | J | 56 1/4W Carbon         | AA |
| R2621   | VRD-RA2BE153J | J | 15k 1/8W Carbon        | AA |
| R2623   | VRD-RA2EE564J | J | 560k1/4W Carbon        | AA |
| R2625   | VRD-RA2EE564J | J | 560k1/4W Carbon        | AA |
| R2626   | VRD-RA2BE272J | J | 2.7k 1/8W Carbon       | AA |

## **MISCELLANEOUS PARTS**

|         |               |   |              |    |
|---------|---------------|---|--------------|----|
| △ F701  | QFS-C5022CEZZ | J | Fuse, T5A    | AD |
|         | QFSHD1002CEZZ | J | Fuse Holder  | AA |
| FB601   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB602   | RBLN-0010CEZZ | J | Ferrite Bead | AC |
| FB603   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| △ FB701 | RBLN-0010CEZZ | J | Ferrite Bead | AC |
| △ FB702 | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB704   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB705   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB707   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB708   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB709   | RBLN-0037CEZZ | J | Ferrite Bead | AB |
| FB711   | RBLN-0037CEZZ | J | Ferrite Bead | AB |

| Ref. No.                                   | Part No. | ★ | Description | Code |
|--|----------|---|-------------|------|
| <b>PWB-B DUNTK7959WEV1</b>                 |          |   |             |      |
| <b>DEFLECTION / POWER UNIT (Continued)</b> |          |   |             |      |

**MISCELLANEOUS PARTS (Continued)**

|         |               |   |                  |    |
|---------|---------------|---|------------------|----|
| △ FB712 | RBLN-0037CEZZ | J | Ferrite Bead     | AB |
| P601    | QPLGN0878GEZZ | J | Plug 8-pin, (W)  | AC |
| P602    | QPLGN0278GEZZ | J | Plug 2-pin, (XV) | AA |
| P603    | QPLGN0413GEZZ | J | Plug 4-pin, (VO) | AB |
| P604    | QPLGN0505CEZZ | J | Plug 5-pin, (K)  | AB |
| P605    | QPLGN0313GEZZ | J | Plug 3-pin, (H)  | AB |
| P702    | QPLGN0213GEZZ | J | Plug 2-pin, (XS) | AB |
| P703    | QPLGN0513GEZZ | J | Plug 5-pin, (XA) | AB |
| △ P705  | QPLGN0304CEZZ | J | Plug 3-pin, (AD) | AB |
| △ P707  | QPLGN0304CEZZ | J | Plug 3-pin, (AC) | AB |
| △ P708  | QPLGN0207CEZZ | J | Plug 2-pin, (G)  | AA |
| △ P710  | QPLGN0304CEZZ | J | Plug 3-pin, (AB) | AB |

— End of PWB-B —

| Ref. No.                   | Part No. | ★ | Description | Code |
|----------------------------|----------|---|-------------|------|
| <b>PWB-C DUNTK7958WEV1</b> |          |   |             |      |
| <b>CRT Socket Unit</b>     |          |   |             |      |

**TRANSISTORS**

|         |               |   |           |    |
|---------|---------------|---|-----------|----|
| △ Q2801 | VS2SC4544LB1E | J | 2SC4544LB | AD |
| △ Q2802 | VS2SC4544LB1E | J | 2SC4544LB | AD |
| △ Q2803 | VS2SC4544LB1E | J | 2SC4544LB | AD |

**COILS**

|       |               |   |            |    |
|-------|---------------|---|------------|----|
| L2801 | VP-2K470K000K | J | 47 $\mu$ H | AB |
| L2802 | VP-2K470K000K | J | 47 $\mu$ H | AB |
| L2803 | VP-2K470K000K | J | 47 $\mu$ H | AB |

**CONTROLS**

|       |               |   |                    |    |
|-------|---------------|---|--------------------|----|
| R2811 | RVR-B4563CEZZ | J | 500(B) Green Drive | AD |
| R2812 | RVR-B4563CEZZ | J | 500(B) Blue Drive  | AD |
| R2816 | RVR-B5015CEZZ | J | 1k(B) Red Bias     | AC |
| R2817 | RVR-B5015CEZZ | J | 1k(B) Green Bias   | AC |
| R2818 | RVR-B5015CEZZ | J | 1k(B) Blue Bias    | AC |

**CAPACITORS**

|       |               |   |                      |    |
|-------|---------------|---|----------------------|----|
| C2801 | VCKYAT1HB391K | J | 390p 50V Ceramic     | AA |
| C2802 | VCKYPA1HB391K | J | 390p 50V Ceramic     | AA |
| C2803 | VCKYPA1HB391K | J | 390p 50V Ceramic     | AA |
| C2804 | VCKYAT1HB331K | J | 330p 50V Ceramic     | AA |
| C2805 | VCKYAT1HB221K | J | 220p 50V Ceramic     | AA |
| C2806 | VCKYAT1HB221K | J | 220p 50V Ceramic     | AA |
| C2807 | VCEAGA2EW106M | J | 10 250V Electrolytic | AC |
| C2809 | RC-KZ0029CEZZ | J | 0.01 2kV Ceramic     | AC |
| C2810 | VCKYPA1HB561K | J | 560p 50V Ceramic     | AA |

**RESISTORS**

|       |               |   |                    |    |
|-------|---------------|---|--------------------|----|
| R2801 | VRD-RA2BE470J | J | 47 1/8W Carbon     | AA |
| R2802 | VRD-RA2BE470J | J | 47 1/8W Carbon     | AA |
| R2803 | VRD-RA2BE470J | J | 47 1/8W Carbon     | AA |
| R2804 | VRD-RA2BE470J | J | 47 1/8W Carbon     | AA |
| R2805 | VRD-RA2BE470J | J | 47 1/8W Carbon     | AA |
| R2806 | VRD-RA2BE470J | J | 47 1/8W Carbon     | AA |
| R2807 | VRD-RA2BE151J | J | 150 1/8W Carbon    | AA |
| R2808 | VRD-RA2BE151J | J | 150 1/8W Carbon    | AA |
| R2809 | VRD-RA2BE151J | J | 150 1/8W Carbon    | AA |
| R2810 | VRD-RA2BE151J | J | 150 1/8W Carbon    | AA |
| R2811 | See Controls  |   |                    |    |
| R2812 | See Controls  |   |                    |    |
| R2813 | VRD-RA2BE391J | J | 390 1/8W Carbon    | AA |
| R2814 | VRD-RA2BE391J | J | 390 1/8W Carbon    | AA |
| R2815 | VRD-RA2BE391J | J | 390 1/8W Carbon    | AA |
| R2816 | See Controls  |   |                    |    |
| R2817 | See Controls  |   |                    |    |
| R2818 | See Controls  |   |                    |    |
| R2819 | VRS-VV3DB183J | J | 18k 2W Metal Oxide | AA |
| R2820 | VRS-VV3DB183J | J | 18k 2W Metal Oxide | AA |
| R2821 | VRS-VV3DB183J | J | 18k 2W Metal Oxide | AA |
| R2822 | VRC-MA2HG224K | J | 220k 1/2W Solid    | AA |
| R2823 | VRC-MA2HG102K | J | 1k 1/2W Solid      | AA |
| R2824 | VRC-MA2HG102K | J | 1k 1/2W Solid      | AA |
| R2825 | VRC-MA2HG102K | J | 1k 1/2W Solid      | AA |
| R2826 | VRS-VV3DB183J | J | 18k 2W Metal Oxide | AA |
| R2827 | VRS-VV3DB183J | J | 18k 2W Metal Oxide | AA |
| R2828 | VRS-VV3DB183J | J | 18k 2W Metal Oxide | AA |

**MISCELLANEOUS PARTS**

|          |               |   |                  |    |
|----------|---------------|---|------------------|----|
| P2801    | QPLGN0578GEZZ | J | Plug 5-pin, (KY) | AB |
| P2802    | QPLGN0313GEZZ | J | Plug 3-pin, (H)  | AB |
| △ SC2801 | QSOCV0919CEZZ | J | CRT Socket       | AH |

— End of PWB-C —

| Ref. No.     | Part No.             | ★ | Description     | Code |
|--------------|----------------------|---|-----------------|------|
| <b>PWB-D</b> | <b>DUNTK7957WEV1</b> |   | <b>LED UNIT</b> |      |

**DIODES**

|       |               |   |                    |    |
|-------|---------------|---|--------------------|----|
| D1701 | RH-PX0291CEZZ | J | LED, Power Ind.    | AC |
| D1703 | RH-PX0274CEZZ | J | LED, Surround Ind. | AC |
| D1704 | RH-PX0274CEZZ | J | LED, S-Video Ind.  | AC |

**CAPACITORS**

|       |               |   |                       |    |
|-------|---------------|---|-----------------------|----|
| C1701 | VCKYD41CY103N | J | 0.01 16V Ceramic      | AA |
| C1702 | VCEAGA0JW107M | J | 100 6.3V Electrolytic | AB |

**RESISTORS**

|       |               |   |                  |    |
|-------|---------------|---|------------------|----|
| R1701 | VRD-RA2EE101J | J | 100 1/4W Carbon  | AA |
| R1702 | VRD-RA2EE101J | J | 100 1/4W Carbon  | AA |
| R1703 | VRD-RA2EE272J | J | 2.7k 1/4W Carbon | AA |
| R1704 | VRD-RA2EE272J | J | 2.7k 1/4W Carbon | AA |
| R1705 | VRD-RM2HD821J | J | 820 1/2W Carbon  | AA |
| R1706 | VRD-RA2EE272J | J | 2.7k 1/4W Carbon | AA |

**SWITCH**

|         |               |   |                     |    |
|---------|---------------|---|---------------------|----|
| △ S1701 | QSW-P0566CEZZ | J | Main's Power Switch | AL |
|---------|---------------|---|---------------------|----|

**MISCELLANEOUS PARTS**

|         |               |   |                         |    |
|---------|---------------|---|-------------------------|----|
| △ P1711 | QPLGN0404CEZZ | J | Plug 4-pin, (AA)        | AB |
| P1712   | QPLGN0978GEZZ | J | Plug 9-pin, (O)         | AC |
|         | RRMCU0195CEZZ | J | Remote Control Receiver | AK |

| Ref. No.     | Part No.             | ★ | Description         | Code |
|--------------|----------------------|---|---------------------|------|
| <b>PWB-E</b> | <b>DUNTK7956WEV1</b> |   | <b>CONTROL UNIT</b> |      |

**TRANSISTOR**

|       |               |   |          |    |
|-------|---------------|---|----------|----|
| Q2301 | VS2SC945AP/-1 | J | 2SC945AP | AB |
|-------|---------------|---|----------|----|

**DIODES**

|       |               |   |                   |    |
|-------|---------------|---|-------------------|----|
| D2301 | VHD1SS119//1E | J | 1SS119            | AA |
| D2302 | VHD1SS119//1E | J | 1SS119            | AA |
| D2303 | RH-EX0153GEZZ | J | Zener Diode, 9.1V | AB |

**CAPACITORS**

|       |               |   |                     |    |
|-------|---------------|---|---------------------|----|
| C2301 | VCKYD41CY103N | J | 0.01 16V Ceramic    | AA |
| C2302 | VCEAGA1CW106M | J | 10 16V Electrolytic | AA |

**RESISTORS**

|       |               |   |                |    |
|-------|---------------|---|----------------|----|
| R2301 | VRD-RA2HD102J | J | 1k 1/2W Carbon | AA |
| R2302 | VRD-RA2BE470J | J | 47 1/8W Carbon | AA |

**SWITCHES**

|         |               |   |   |    |
|---------|---------------|---|---|----|
| △ S1711 | QSW-K0095CEZZ | J | Stand-By  | AB |
| △ S1712 | QSW-K0095CEZZ | J | Channel Up  | AB |
| △ S1713 | QSW-K0095CEZZ | J | Channel Down  | AB |
| △ S1714 | QSW-K0095CEZZ | J | Vol-Up  | AB |
| △ S1715 | QSW-K0095CEZZ | J | Vol-Down  | AB |
| △ S1716 | QSW-K0095CEZZ | J | P-Mode  | AB |
| △ S1717 | QSW-K0095CEZZ | J | P-Up  | AB |
| △ S1718 | QSW-K0095CEZZ | J | P-Down  | AB |
| △ S1721 | QSW-K0105CEZZ | J | Fine-Up, Fine-Down,<br>Skip, System, P-Tone,<br>Blue-Back, Surround,<br>Auto-Up, Auto-Down,<br>Preset | AP |

**MISCELLANEOUS PARTS**

|       |               |   |                  |    |
|-------|---------------|---|------------------|----|
| P1710 | QPLGN0478GEZZ | J | Plug 4-pin, (SS) | AB |
| P1713 | QPLGN0913GEZZ | J | Plug 9-pin, (T)  | AB |
| P1714 | QPLGN0913GEZZ | J | Plug 9-pin, (RS) | AB |
| P1715 | QPLGN0278GEZZ | J | Plug 2-pin, (TB) | AA |

— End of PWB-D —

— End of PWB-E —

| Ref. No.                               | Part No.      | * | Description                             | Code | Ref. No.          | Part No.      | * | Description            | Code |
|--|---------------|---|---|------|-------------------|---------------|---|------------------------|------|
| <b>PWM-A DUNTK7963WEV1<br/>IF UNIT</b> |               |   |   |      | <b>CAPACITORS</b> |               |   |                        |      |
| <b>INTEGRATED CIRCUITS</b>             |               |   |   |      | C2001             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| IC2001                                 | VHILA7555/-1  | J | LA7555                                  | AM   | C2002             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| IC2002                                 | VHITA8710S/-1 | J | TA8710S                                 | AL   | C2003             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| <b>TRANSISTORS</b>                     |               |   |   |      | C2004             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| Q2001                                  | VS2SC1906//1E | J | 2SC1906                                 | AC   | C2005             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| Q2002                                  | VS2SC945AP/-1 | J | 2SC945AP                                | AB   | C2006             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| Q2003                                  | VS2SC945AP/-1 | J | 2SC945AP                                | AB   | C2007             | VCEAGA1CW107M | J | 100 16V Electrolytic   | AB   |
| Q2004                                  | VS2SC945AP/-1 | J | 2SC945AP                                | AB   | C2008             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| Q2005                                  | VS2SC945AP/-1 | J | 2SC945AP                                | AB   | C2009             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| Q2006                                  | VS2SC945AP/-1 | J | 2SC945AP                                | AB   | C2010             | VCEAGA1HW474M | J | 0.47 50V Electrolytic  | AA   |
| Q2007                                  | VS2SC3399/-1  | J | 2SC3399                                 | AB   | C2011             | VCFYHA1HA683J | J | 0.068 50V M. Polyester | AB   |
| Q2008                                  | VS2SC945AP/-1 | J | 2SC945AP                                | AB   | C2012             | VCCCPA1HH9R0D | J | 9p 50V Ceramic         | AA   |
| Q2010                                  | VS2SC3399/-1  | J | 2SC3399                                 | AB   | C2013             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| <b>DIODES</b>                          |               |   |   |      | C2014             | VCEAGA1CW107M | J | 100 16V Electrolytic   | AB   |
| D2001                                  | VHD1SS119//1E | J | 1SS119                                  | AA   | C2015             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| D2002                                  | VHD1SS119//1E | J | 1SS119                                  | AA   | C2016             | VCEAGA1HW474M | J | 0.47 50V Electrolytic  | AA   |
| D2003                                  | VHD1SS119//1E | J | 1SS119                                  | AA   | C2017             | VCEAGA1CW476M | J | 47 16V Electrolytic    | AB   |
| D2004                                  | VHD1SS119//1E | J | 1SS119                                  | AA   | C2018             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| D2005                                  | RH-EX0440CEZZ | J | Zener Diode                             | AA   | C2019             | VCKYD41CY103N | J | 0.01 16V Ceramic       | AA   |
| D2006                                  | VHD1SS119//1E | J | 1SS119                                  | AA   | C2020             | VCQYTA1HM103J | J | 0.01 50V Mylar         | AA   |
| D2007                                  | VHD1SS119//1E | J | 1SS119                                  | AA   | C2021             | VCQYTA1HM123J | J | 0.012 50V Mylar        | AA   |
| <b>COILS AND TRANSFORMERS</b>          |               |   |   |      | C2022             | VCE9GA1CW106M | J | 10 16V Elect.(N.P)     | AB   |
| CF2001                                 | RFILC0205CEZZ | J | Ceramic Filter<br>6.0 MHz Discriminator | AD   | C2023             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| CF2002                                 | RFILC0078GEZZ | J | Ceramic Filter<br>4.5 MHz Discriminator | AD   | C2024             | VCEAGA1CW106M | J | 10 16V Electrolytic    | AA   |
| CF2003                                 | RFILC0143CEZZ | J | Ceramic Filter<br>5.5 MHz Filter        | AD   | C2025             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| CF2004                                 | RFILC0144CEZZ | J | Ceramic Filter<br>6.0 MHz Filter        | AD   | C2026             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| CF2005                                 | RFILC0145CEZZ | J | Ceramic Filter<br>6.5 MHz Filter        | AE   | C2027             | VCEAGA1CW107M | J | 100 16V Electrolytic   | AB   |
| CF2006                                 | RFILC0174CEZZ | J | Ceramic Filter,<br>4.5 MHz Filter       | AD   | C2028             | VCKYPA1HB471K | J | 470p 50V Ceramic       | AA   |
| CF2007                                 | RFILA0050CEZZ | J | Ceramic Filter,<br>500kHz Oscillator    | AC   | C2029             | VCKYPA1HB471K | J | 470p 50V Ceramic       | AA   |
| CF2008                                 | RFILC0084CEZZ | J | Ceramic Filter, 6.0 MHz                 | AF   | C2030             | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA   |
| L2001                                  | VP-XF1R0K0000 | J | Coil, 1 $\mu$ H                         | AB   | C2031             | VCCCPA1HH680J | J | 68p 50V Ceramic        | AA   |
| L2004                                  | VP-XF220K0000 | J | Coil, 22 $\mu$ H                        | AB   | C2032             | VCKYD41CY103N | J | 0.01 16V Ceramic       | AA   |
| L2005                                  | VP-XF100K0000 | J | Coil, 10 $\mu$ H                        | AB   | C2033             | VCEAGA1CW107M | J | 100 16V Electrolytic   | AB   |
| SF2001                                 | RFILC0232CEZZ | J | Surface Acoustic<br>Wave Filter         | AN   | C2034             | VCKYD41CY103N | J | 0.01 16V Ceramic       | AA   |
| T2001                                  | RCiLi0543CEZZ | J | S.A.W. Matching Coil                    | AD   | <b>RESISTORS</b>  |               |   |                        |      |
| T2002                                  | RCiLD0199CEZZ | J | AFT Coil                                | AD   | R2001             | VRD-RA2BE562J | J | 5.6k 1/8W Carbon       | AA   |
| T2003                                  | RCiLD0096CEZZ | J | V.C.O. Coil                             | AE   | R2002             | VRD-RA2BE152J | J | 1.5k 1/8W Carbon       | AA   |
|  |               |   |   |      | R2003             | VRD-RA2BE680J | J | 68 1/8W Carbon         | AA   |
|  |               |   |   |      | R2004             | VRD-RA2BE332J | J | 3.3k 1/8W Carbon       | AA   |
|  |               |   |   |      | R2005             | VRD-RM2HD221J | J | 220 1/2W Carbon        | AA   |
|  |               |   |   |      | R2006             | VRD-RA2EE561J | J | 560 1/4W Carbon        | AA   |
|  |               |   |   |      | R2007             | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2008             | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2009             | VRD-RA2EE561J | J | 560 1/4W Carbon        | AA   |
|  |               |   |   |      | R2010             | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2011             | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2012             | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2013             | VRD-RA2BE223J | J | 22k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2014             | VRD-RA2BE122J | J | 1.2k 1/8W Carbon       | AA   |
|  |               |   |   |      | R2015             | VRD-RA2BE103J | J | 10k 1/8W Carbon        | AA   |
|  |               |   |   |      | R2016             | VRD-RA2BE824J | J | 820k 1/8W Carbon       | AA   |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

### PWM-A DUNTK7963WEV1 IF UNIT (Continued)

#### RESISTORS (Continued)

|         |               |   |                       |    |
|---------|---------------|---|-----------------------|----|
| R2017   | VRD-RA2BE332J | J | 3.3k 1/8W Carbon      | AA |
| R2018   | VRD-RA2BE561J | J | 560 1/8W Carbon       | AA |
| R2019   | VRD-RA2BE151J | J | 150 1/8W Carbon       | AA |
| R2020   | VRD-RA2BE222J | J | 2.2k 1/8W Carbon      | AA |
| R2021   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R2022   | VRD-RM2HD471J | J | 470 1/2W Carbon       | AA |
| △ R2023 | VRG-RF2EB220J | J | 22 1/4W Fuse Resistor | AB |
| R2024   | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA |
| R2025   | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA |
| R2026   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |
| R2027   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |
| R2028   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R2029   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R2030   | VRD-RA2BE683J | J | 68k 1/8W Carbon       | AA |
| R2031   | VRD-RA2BE683J | J | 68k 1/8W Carbon       | AA |
| R2032   | VRD-RA2BE183J | J | 18k 1/8W Carbon       | AA |
| R2033   | VRD-RA2BE683J | J | 68k 1/8W Carbon       | AA |
| R2034   | VRD-RA2BE683J | J | 68k 1/8W Carbon       | AA |
| R2036   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R2038   | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA |
| R2039   | VRD-RA2BE223J | J | 22k 1/8W Carbon       | AA |
| R2040   | VRD-RA2BE561J | J | 560 1/8W Carbon       | AA |
| R2041   | VRD-RA2BE561J | J | 560 1/8W Carbon       | AA |
| R2042   | VRD-RA2BE561J | J | 560 1/8W Carbon       | AA |
| R2043   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R2044   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R2045   | VRD-RA2EE105J | J | 1M 1/4W Carbon        | AA |
| R2046   | VRD-RA2BE472J | J | 4.7k 1/8W Carbon      | AA |
| R2047   | VRD-RA2BE561J | J | 560 1/8W Carbon       | AA |
| R2048   | VRD-RA2BE821J | J | 820 1/8W Carbon       | AA |
| R2049   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |
| R2050   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |

#### MISCELLANEOUS PARTS

|       |               |   |                  |    |
|-------|---------------|---|------------------|----|
| P2001 | QPLGZ0707GEZZ | J | Plug 7-pin, (IF) | AB |
| P2002 | QPLGZ0607GEZZ | J | Plug 6-pin, (SH) | AC |

— End of PWM-A —

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

### PWM-B DUNTK7961WEV1 AV UNIT

#### INTEGRATED CIRCUIT

|        |                |   |        |    |
|--------|----------------|---|--------|----|
| IC1401 | VHITA8742// -1 | J | TA8742 | AN |
|--------|----------------|---|--------|----|

#### TRANSISTORS

|       |                |   |            |    |
|-------|----------------|---|------------|----|
| Q1301 | VS2SA1015Y/1E  | J | 2SA1015(Y) | AC |
| Q1302 | VS2SA1015Y/1E  | J | 2SA1015(Y) | AC |
| Q1303 | VS2SA1015Y/1E  | J | 2SA1015(Y) | AC |
| Q1304 | VS2SA1015Y/1E  | J | 2SA1015(Y) | AC |
| Q1401 | VS2SC945AP/-1  | J | 2SC945AP   | AB |
| Q1402 | VS2SC945AP/-1  | J | 2SC945AP   | AB |
| Q1403 | VS2SC945AP/-1  | J | 2SC945AP   | AB |
| Q1404 | VS2SC3399// -1 | J | 2SC3399    | AB |
| Q1405 | VS2SC3399// -1 | J | 2SC3399    | AB |
| Q1406 | VS2SA1015Y/1E  | J | 2SA1015(Y) | AC |
| Q1407 | VS2SA1015Y/1E  | J | 2SA1015(Y) | AC |

#### DIODES

|       |               |   |        |    |
|-------|---------------|---|--------|----|
| D1301 | VHD1SS119//1E | J | 1SS119 | AA |
| D1302 | VHD1SS119//1E | J | 1SS119 | AA |
| D1303 | VHD1SS119//1E | J | 1SS119 | AA |
| D1304 | VHD1SS119//1E | J | 1SS119 | AA |
| D1305 | VHD1SS119//1E | J | 1SS119 | AA |
| D1402 | VHD1SS119//1E | J | 1SS119 | AA |
| D1403 | VHD1SS119//1E | J | 1SS119 | AA |
| D1404 | VHD1SS119//1E | J | 1SS119 | AA |
| D1405 | VHD1SS119//1E | J | 1SS119 | AA |
| D1406 | VHD1SS119//1E | J | 1SS119 | AA |

#### COILS AND TRANSFORMERS

|        |               |   |                |    |
|--------|---------------|---|----------------|----|
| CF1401 | RFILC0013CEZZ | J | Ceramic Filter | AE |
| L1401  | VP-DF150K0000 | J | Coil, 15μH     | AB |
| L1402  | VP-DF120K0000 | J | Coil, 12μH     | AB |

#### CAPACITORS

|       |               |   |                      |    |
|-------|---------------|---|----------------------|----|
| C1301 | VCEAGA1HW475M | J | 4.7 50V Electrolytic | AB |
| C1302 | VCEAGA1HW105M | J | 1 50V Electrolytic   | AC |
| C1303 | VCEAGA1HW105M | J | 1 50V Electrolytic   | AC |
| C1304 | VCEAGA1HW105M | J | 1 50V Electrolytic   | AC |
| C1305 | VCKYD41HB101K | J | 100p 50V Ceramic     | AA |
| C1306 | VCEAGA1CW476M | J | 47 16V Electrolytic  | AB |
| C1307 | VCEAGA1HW105M | J | 1 50V Electrolytic   | AC |
| C1308 | VCCSPA1HL101J | J | 100p 50V Ceramic     | AA |
| C1309 | VCEAGA1CW476M | J | 47 16V Electrolytic  | AB |
| C1401 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |



| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

### PWM-B DUNTK7961WEV1 AV UNIT (Continued)

#### CAPACITORS (Continued)

|       |               |   |                      |    |
|-------|---------------|---|----------------------|----|
| C1402 | VCCCPA1HH181J | J | 180p 50V Ceramic     | AA |
| C1403 | VCCCPA1HH181J | J | 180p 50V Ceramic     | AA |
| C1405 | VCEAGA1CW106M | J | 10 16V Electrolytic  | AA |
| C1406 | VCCCPA1HH820J | J | 82p 50V Ceramic      | AA |
| C1407 | VCE9GA1HW105M | J | 1 50V Elect. (N.P)   | AB |
| C1408 | VCE9GA1HW105M | J | 1 50V Elect. (N.P)   | AB |
| C1410 | VCKYPA1HF103Z | J | 0.01 50V Ceramic     | AA |
| C1411 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C1412 | VCEAGA1CW477M | J | 470 16V Electrolytic | AC |
| C1413 | VCEAGA1CW106M | J | 10 16V Electrolytic  | AA |
| C1414 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C1415 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C1416 | VCEAGA1CW107M | J | 100 16V Electrolytic | AB |
| C1417 | VCKYPA1HF103Z | J | 0.01 50V Ceramic     | AA |
| C1418 | VCKYPA1HF103Z | J | 0.01 50V Ceramic     | AA |

#### RESISTORS

|         |               |   |                       |    |
|---------|---------------|---|-----------------------|----|
| R1301   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R1304   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R1305   | VRD-RA2EE562J | J | 5.6k 1/4W Carbon      | AA |
| R1306   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1307   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R1308   | VRD-RA2EE562J | J | 5.6k 1/4W Carbon      | AA |
| R1309   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1310   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1311   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1312   | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA |
| R1313   | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA |
| R1314   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R1315   | VRD-RA2BE183J | J | 18k 1/8W Carbon       | AA |
| R1316   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1317   | VRD-RA2EE152J | J | 1.5k 1/4W Carbon      | AA |
| R1318   | VRD-RU2EE681J | J | 680 1/4W Carbon       | AA |
| R1319   | VRD-RA2BE104J | J | 100k 1/8W Carbon      | AA |
| R1322   | VRD-RA2EE152J | J | 1.5k 1/4W Carbon      | AA |
| R1323   | VRD-RA2BE104J | J | 100k 1/8W Carbon      | AA |
| R1324   | VRD-RA2EE681J | J | 680 1/4W Carbon       | AA |
| R1325   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R1326   | VRD-RA2BE183J | J | 18k 1/8W Carbon       | AA |
| R1327   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1328   | VRD-RA2BE393J | J | 39k 1/8W Carbon       | AA |
| △ R1401 | VRG-RF2EB100J | J | 10 1/4W Fuse Resistor | AB |
| R1402   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1403   | VRD-RA2BE102J | J | 1k 1/8W Carbon        | AA |
| R1404   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R1405   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R1406   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |
| R1407   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |
| R1408   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

#### RESISTORS (Continued)

|         |               |   |                       |    |
|---------|---------------|---|-----------------------|----|
| R1409   | VRD-RA2EE561J | J | 560 1/4W Carbon       | AA |
| R1410   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R1411   | VRD-RA2BE562J | J | 5.6k 1/8W Carbon      | AA |
| R1412   | VRD-RA2BE681J | J | 680 1/8W Carbon       | AA |
| R1413   | VRD-RA2BE821J | J | 820 1/8W Carbon       | AA |
| R1414   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1415   | VRD-RA2EE331J | J | 330 1/4W Carbon       | AA |
| R1416   | VRD-RA2EE221J | J | 220 1/4W Carbon       | AA |
| R1418   | VRD-RA2BE331J | J | 330 1/8W Carbon       | AA |
| R1419   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1421   | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA |
| △ R1422 | VRG-RF2EB100J | J | 10 1/4W Fuse Resistor | AB |
| R1425   | VRD-RM2HD471J | J | 470 1/2W Carbon       | AA |
| R1426   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| R1427   | VRD-RA2BE101J | J | 100 1/8W Carbon       | AA |
| △ R1428 | VRG-RF2EB100J | J | 10 1/4W Fuse Resistor | AB |
| △ R1429 | VRG-RF2EB100J | J | 10 1/4W Fuse Resistor | AB |
| R1430   | VRD-RM2HD221J | J | 220 1/2W Carbon       | AA |
| R1431   | VRD-RA2EE750J | J | 75 1/4W Carbon        | AA |
| R1432   | VRD-RA2BE103J | J | 10k 1/8W Carbon       | AA |
| R1433   | VRD-RA2EE750J | J | 75 1/4W Carbon        | AA |
| R1434   | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA |
| R1435   | VRD-RA2BE473J | J | 47k 1/8W Carbon       | AA |
| R1440   | VRD-RA2EE102J | J | 1 1/4W Carbon         | AA |

#### MISCELLANEOUS PARTS

|       |               |   |                   |    |
|-------|---------------|---|-------------------|----|
| P1401 | QPLGN0562CEZZ | J | Plug 5-pin, (V1)  | AB |
| P1402 | QPLGN0562CEZZ | J | Plug 5-pin, (V2)  | AB |
| P1301 | QPLGN0762CEZZ | J | Plug 7-pin, (V3)  | AB |
| P1302 | QPLGN1062CEZZ | J | Plug 10-pin, (V4) | AC |

— End of PWM-B —

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

## PWM-C DUNTK7962WEV1 VCJ UNIT

### INTEGRATED CIRCUIT

|        |               |   |          |    |
|--------|---------------|---|----------|----|
| IC1801 | RH-IX0969CEN1 | J | TA8659AN | BA |
|--------|---------------|---|----------|----|

### TRANSISTOR

|       |               |   |            |    |
|-------|---------------|---|------------|----|
| Q2401 | VS2SA1015Y/1E | J | 2SA1015(Y) | AC |
|-------|---------------|---|------------|----|

### DIODES

|       |               |   |             |    |
|-------|---------------|---|-------------|----|
| D1601 | RH-EX0395GEZZ | J | Zener Diode | AA |
| D1602 | RH-EX0041TAZZ | J | Zener Diode | AC |
| D1603 | RH-EX0384GEZZ | J | Zener Diode | AA |
| D1801 | RH-EX0395GEZZ | J | Zener Diode | AA |

### PACKAGED CIRCUITS

|       |               |   |                   |    |
|-------|---------------|---|-------------------|----|
| X1801 | RCRSB0067CEZZ | J | Crystal, 4.43 MHz | AQ |
| X1802 | RCRSB0001PEZZ | R | Crystal, 3.58 MHz | AL |

### COIL AND TRANSFORMERS

|        |               |   |                                 |    |
|--------|---------------|---|---------------------------------|----|
| CF1601 | RFILA0005CEZZ | J | Ceramic Filter,<br>503 kHz Osc. | AE |
| DL1801 | RCILZ0475CEZZ | J | Coil, 1H-DL                     | AP |
| DL2401 | RCILZ0629CEZZ | J | Coil, Y-DL                      | AG |
| L1801  | VP-DF8R2K0000 | J | Coil, 8.2μH                     | AB |
| L2401  | VP-MK390K0000 | J | Coil, 39μH                      | AB |
| T1801  | RCILZ0511CEZZ | J | 1H Delay Phase Coil             | AD |
| T1901  | RCILi0435CEZZ | J | IF Coil,<br>B-Y Discriminator   | AE |
| T1902  | RCILi0435CEZZ | J | IF Coil,<br>R-Y Discriminator   | AE |
| T1903  | RCILi0364CEZZ | J | IF Coil, Bell Filter            | AD |
| T1904  | RCILi0435CEZZ | J | IF Coil, SECAM Killer           | AE |

### CONTROLS

|       |               |   |                   |    |
|-------|---------------|---|-------------------|----|
| R1804 | RVR-B5266CEZZ | J | 20k(B) Sub-Colour | AB |
| R1805 | RVR-B5265CEZZ | J | 10k(B) Sub-Hue    | AB |
| R1810 | RVR-B5261CEZZ | J | 1k(B) DL-Amp.     | AB |

### CAPACITORS

|       |               |   |                      |    |
|-------|---------------|---|----------------------|----|
| C1601 | VCEAGA1CW227M | J | 220 16V Electrolytic | AC |
| C1602 | VCQYTA1HM223J | J | 0.022 50V Mylar      | AA |
| C1603 | VCEAGA1HW225M | J | 2.2 50V Electrolytic | AB |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

### CAPACITORS (Continued)

|       |               |   |                        |    |
|-------|---------------|---|------------------------|----|
| C1604 | VCQYTA1HM223J | J | 0.022 50V Mylar        | AA |
| C1605 | VCCCPA1HH121J | J | 120p 50V Ceramic       | AA |
| C1606 | VCCCPA1HH101J | J | 100p 50V Ceramic       | AA |
| C1608 | VCEAGA1HW105M | J | 1 50V Electrolytic     | AC |
| C1611 | VCEAGA0JW107M | J | 100 6.3V Electrolytic  | AB |
| C1612 | VCKYD41CY103N | J | 0.01 16V Ceramic       | AA |
| C1801 | VCFYHA1HA104J | J | 0.1 50V M. Polyester   | AB |
| C1804 | VCEAGA1CW106M | J | 10 16V Electrolytic    | AA |
| C1805 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C1806 | VCEAGA1CW106M | J | 10 16V Electrolytic    | AA |
| C1807 | VCKYD41CY103N | J | 0.01 16V Ceramic       | AA |
| C1808 | VCKYD41CY103N | J | 0.01 16V Ceramic       | AA |
| C1812 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C1813 | VCFYHA1HA563J | J | 0.056 50V M. Polyester | AB |
| C1814 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C1815 | VCE9GA1HW105M | J | 1 50V Elect. (N.P)     | AB |
| C1816 | VCQYTA1HM103J | J | 0.01 50V Mylar         | AA |
| C1817 | VCCCPA1HH220J | J | 22p 50V Ceramic        | AA |
| C1818 | VCCCPA1HH330J | J | 33p 50V Ceramic        | AA |
| C1819 | VCCCPA1HH220J | J | 22p 50V Ceramic        | AA |
| C1820 | VCCCPA1HH150J | J | 15p 50V Ceramic        | AA |
| C1821 | VCEAGA1HW474M | J | 0.47 50V Electrolytic  | AA |
| C1822 | VCFYHA1HA563J | J | 0.056 50V M. Polyester | AB |
| C1901 | VCEAGA1HW474M | J | 0.47 50V Electrolytic  | AA |
| C1902 | VCCSPA1HL181J | J | 180p 50V Ceramic       | AA |
| C1903 | VCEAGA1HW474M | J | 0.47 50V Electrolytic  | AA |
| C1904 | VCCSPA1HL181J | J | 180p 50V Ceramic       | AA |
| C1905 | VCCSPA1HL181J | J | 180p 50V Ceramic       | AA |
| C1906 | VCCSPA1HL151J | J | 150p 50V Ceramic       | AA |
| C1907 | VCCCPA1HH390J | J | 39p 50V Ceramic        | AA |
| C1908 | VCCCPA1HH180J | J | 18p 50V Ceramic        | AA |
| C1909 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C1910 | VCCCPA1HH151J | J | 150p 50V Ceramic       | AA |
| C1911 | VCCCD11HH220J | J | 22p 50V Ceramic        | AA |
| C1912 | VCFYHA1HA563J | J | 0.056 50V M. Polyester | AB |
| C1913 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C2401 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C2402 | VCEAGA1CW477M | J | 470 16V Electrolytic   | AC |
| C2403 | VCEAGA1CW476M | J | 47 16V Electrolytic    | AB |
| C2404 | VCEAGA1CW227M | J | 220 16V Electrolytic   | AC |
| C2405 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C2406 | VCEAGA1CW106M | J | 10 16V Electrolytic    | AA |
| C2407 | VCEAGA1HW105M | J | 1 50V Electrolytic     | AC |
| C2408 | VCCCPA1HH560J | J | 56p 50V Ceramic        | AA |
| C2409 | VCCCPA1HH101J | J | 100p 50V Ceramic       | AA |
| C2410 | VCEAGA1CW106M | J | 10 16V Electrolytic    | AA |
| C2411 | VCEAGA1HW224M | J | 0.22 50V Electrolytic  | AA |
| C2412 | VCEAGA1HW224M | J | 0.22 50V Electrolytic  | AA |
| C2413 | VCEAGA1HW224M | J | 0.22 50V Electrolytic  | AA |
| C2414 | VCKYPA1HF103Z | J | 0.01 50V Ceramic       | AA |
| C2418 | VCEAGA1CW106M | J | 10 16V Electrolytic    | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

### PWM-C DUNTK7962WEV1 VCJ UNIT (Continued)

#### RESISTORS

|       |               |   |                  |    |
|-------|---------------|---|------------------|----|
| R1601 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1602 | VRD-RA2BE471J | J | 470 1/8W Carbon  | AA |
| R1603 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon | AA |
| R1604 | VRD-RA2BE333J | J | 33k 1/8W Carbon  | AA |
| R1605 | VRD-RA2BE154J | J | 150k 1/8W Carbon | AA |
| R1606 | VRD-RA2BE471J | J | 470 1/8W Carbon  | AA |
| R1609 | VRD-RA2BE563J | J | 56k 1/8W Carbon  | AA |
| R1610 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1611 | VRD-RA2BE223J | J | 22k 1/8W Carbon  | AA |
| R1801 | VRD-RA2BE682J | J | 6.8k 1/8W Carbon | AA |
| R1802 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1803 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1804 | See Controls  |   |                  |    |
| R1805 | See Controls  |   |                  |    |
| R1806 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1807 | VRD-RA2BE104J | J | 100k 1/8W Carbon | AA |
| R1808 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1809 | VRD-RA2BE391J | J | 390 1/8W Carbon  | AA |
| R1810 | See Controls  |   |                  |    |
| R1811 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R1812 | VRD-RA2BE334J | J | 330k 1/8W Carbon | AA |
| R1813 | VRD-RA2BE153J | J | 15k 1/8W Carbon  | AA |
| R1816 | VRD-RA2BE333J | J | 33k 1/8W Carbon  | AA |
| R1817 | VRD-RA2EE475J | J | 4.7M 1/4W Carbon | AA |
| R1820 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R1821 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R1822 | VRD-RA2EE475J | J | 4.7M 1/4W Carbon | AA |
| R1823 | VRD-RA2BE332J | J | 3.3k 1/8W Carbon | AA |
| R1824 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1825 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1826 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1827 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1901 | VRD-RA2BE561J | J | 560 1/8W Carbon  | AA |
| R1902 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon | AA |
| R1903 | VRD-RA2BE561J | J | 560 1/8W Carbon  | AA |
| R1904 | VRD-RA2BE822J | J | 8.2k 1/8W Carbon | AA |
| R1905 | VRD-RA2BE102J | J | 1k 1/8W Carbon   | AA |
| R1906 | VRD-RA2BE681J | J | 680 1/8W Carbon  | AA |
| R1907 | VRD-RA2BE102J | J | 1.0k 1/8W Carbon | AA |
| R1909 | VRD-RA2EE475J | J | 4.7M 1/4W Carbon | AA |
| R1911 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R2402 | VRD-RA2BE182J | J | 1.8k 1/8W Carbon | AA |
| R2403 | VRD-RA2BE222J | J | 2.2k 1/8W Carbon | AA |
| R2404 | VRD-RA2BE681J | J | 680 1/8W Carbon  | AA |
| R2405 | VRD-RA2BE823J | J | 82k 1/8W Carbon  | AA |
| R2406 | VRD-RA2BE154J | J | 150k 1/8W Carbon | AA |
| R2407 | VRD-RA2BE103J | J | 10k 1/8W Carbon  | AA |
| R2408 | VRD-RA2BE152J | J | 1.5k 1/8W Carbon | AA |
| R2409 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R2410 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |
| R2411 | VRD-RA2BE101J | J | 100 1/8W Carbon  | AA |

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

#### MISCELLANEOUS PARTS

|       |               |   |                   |    |
|-------|---------------|---|-------------------|----|
| P1601 | QPLGN0662CEZZ | J | Plug 6-pin, (Y1)  | AB |
| P1602 | QPLGN1062CEZZ | J | Plug 10-pin, (Y2) | AC |
| P1801 | QPLGN0278GEZZ | J | Plug 2-pin, (CC)  | AA |
| P1802 | QPLGN0278GEZZ | J | Plug 2-pin, (CS)  | AA |
| P1803 | QPLGN0278GEZZ | J | Plug 2-pin, (CP)  | AA |
| P1804 | QPLGN0878GEZZ | J | Plug 8-pin, (SY)  | AC |
| P2401 | QPLGN0962CEZZ | J | Plug 9-pin, (Y3)  | AC |
| P2402 | QPLGN0662CEZZ | J | Plug 6-pin, (Y4)  | AB |

— End of PWM-C —

#### MISCELLANEOUS PARTS

|       |               |   |                    |    |
|-------|---------------|---|--------------------|----|
| SP301 | RSP-Z0083CEZZ | J | Speaker (L), 12 cm | AW |
| SP302 | RSP-Z0083CEZZ | J | Speaker (R), 12 cm | AW |
| △     | CACCC2057CE01 | J | ACCord             | AN |

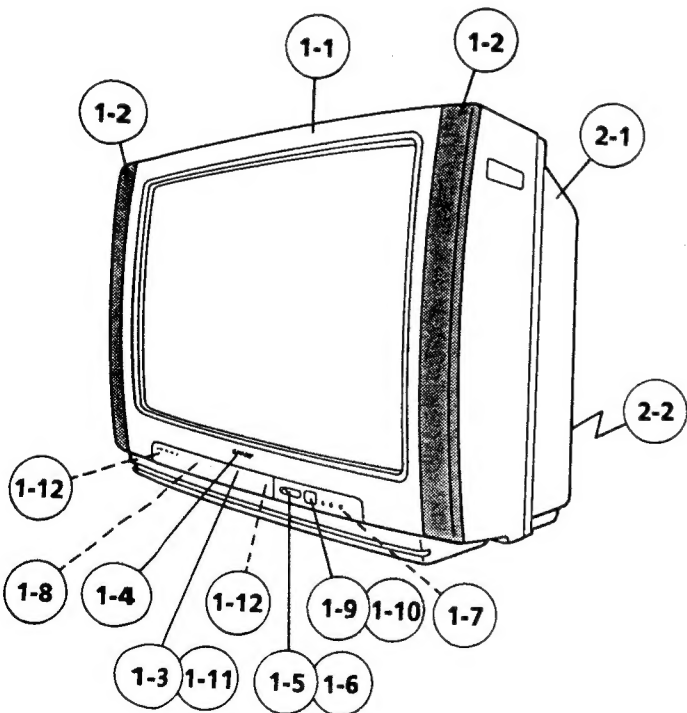
— End of MISCELLANEOUS PART —

| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

**PACKING PARTS**  
**(NOT REPLACEMENT ITEM)**

|  |               |   |                 |   |
|--|---------------|---|-----------------|---|
|  | SPAKC5823PEZZ | - | Packing Case    | — |
|  | SPAKP0083PEZZ | - | Polystyrene Mat | — |
|  | SPAKX0374PEZZ | - | Buffer Material | — |
|  | TLABK0001PEZZ | - | Number Card     | — |

— End of PACKING PARTS —



| Ref. No. | Part No. | ★ | Description | Code |
|----------|----------|---|-------------|------|
|----------|----------|---|-------------|------|

**SUPPLIED ACCESSORIES**

**ACCESSORIES**

|  |               |   |                              |    |
|--|---------------|---|------------------------------|----|
|  | QPLGA0011CEZZ | J | AC Plug Adaptor              | AF |
|  | RRMCG0933PESA | R | Infrared Remote Control Unit | AZ |

**ACCESSORIES (NOT REPLACEMENT ITEM)**

|  |               |   |                                 |   |
|--|---------------|---|---------------------------------|---|
|  | TiNS-5081PEZZ | - | Operation Manual                | — |
|  | UBATU1032CCN1 | - | Dry Batteries, Size AAA (2 pcs) | — |

— End of SUPPLIED ACCESSORIES —

**CABINET PARTS**

|      |               |   |                                   |    |
|------|---------------|---|-----------------------------------|----|
| 1    | CCABA2177WEV0 | R | Cabinet Ass'y, Front              | BY |
| 1-1  | Not Available | - | Cabinet, Front                    | —  |
| 1-2  | Not Available | - | Perforation Cover                 | —  |
| 1-3  | GDORF0142PESA | R | Door                              | AM |
| 1-4  | HBDGB3097CESA | J | Badge "SHARP"                     | AG |
| 1-5  | HDECP0145CEZZ | J | Decoration Plate, R/C             | AC |
| 1-6  | HDECQ0028PESA | R | Decoration Plate, Window          | AD |
| 1-7  | HDECQ0029PESA | R | Decoration Plate, LED             | AD |
| 1-8  | HiNDP4173CEZZ | J | Indication Plate, inside the door | AG |
| 1-9  | JBTN-0104PESA | R | Button, Power                     | AF |
| 1-10 | MSPRC0005PEFW | R | Spring, Power Button              | AA |
| 1-11 | PKAi-0001PE00 | R | Door Latch                        | AF |
| 1-12 | PSPAG0007PE00 | J | Rubber Spacer                     | AA |
| 2    | CCABB2156WEV0 | R | Cabinet Ass'y, Rear               | BN |
| 2-1  | Not Available | - | Cabinet Rear                      | —  |
| 2-2  | HiNDP4175CEZZ | J | Indication Plate, AV              | AF |

— End of CABINET PARTS —

# Memo

A blank sheet of white paper with horizontal ruling lines.

**SHARP**